Project report on

Assessment Report of Health and Wellness Impacts of a Furniture Product as per "ANSI/BIFMA e3-2019 Furniture Sustainability Standard" for AFC Furniture Solutions, West Greater Noida, UP, India

July 2024

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Submitted by

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Submitted to

AFC Furniture Solutions

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CERTIFICATE

This is to certify that the report on "**Assessment Report of Health and Wellness Impacts of a Furniture Product as per "ANSI/BIFMA e3-2019 Furniture Sustainability Standard" for AFC Furniture Solutions, West Greater Noida, UP, India**", is original and based on the primary data from client and relevant secondary data sources. The data sources are duly referred and acknowledged.

Date: 22.07.2024

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1. Introduction

1.1. Background

To avoid the greenwashing in furniture manufacturing, Business & Institutional Furniture Manufacturers Association (BIFMA) came up with ANSI/BIFMA e3 Furniture Sustainability standard. This is an American National Standard for furniture sustainability based on rigorous research from industry and academia, framed by a joint consensus between BIMA and National Sanitation Foundation (NSF) International. This standard is the only furniture standard of its kind with a publicly disclosed Chemicals of Concern list. ANSI/BIFMA e3 Furniture Sustainability standard is a multi-attribute standard focused on analyzing various levels of environmental, health & wellness and social aspects throughout the supply chain to address the triple bottom line of sustainability. In this report, the elaboration on standard for '**health and wellness impacts'** are presented.

Health and Wellness Impacts includes all the impacts on human health by the product or process, which includes the health and safety of the labour in manufacturing unit and the wellness of the end users of the product. This element is briefed in section 7 of ANSI/BIFMA e3 – 2019 standard and consists of three prerequisites and 38 additionally achievable points.

This study conducted a health and wellness impact assessment for AFC Furniture Solutions, India, focusing specifically on their product - DeskPro. Subsequent subsections will detail the company profile (Section 1.2) and product profile (Section 1.3). This will be followed by a summary of the scope of work (Section 1.4) and methodology (Section 1.5). Sections 2, 3, and 4 will present assessment records at the organizational, product, and facility levels, respectively. Finally, a summary of the assessment findings is presented.

1.2. Company Profile

AFC, with a 15-year history, is a leading provider of modular furniture solutions, rooted in innovation, sustainability, and exceptional service. Originating as a bootstrap organization in 2008, AFC quickly expanded its operations to meet the growing demand for ergonomic furniture solutions across India.

Driven by a commitment to address delivery concerns in the industry, AFC established an in-house manufacturing facility within three years, scaling up production to accommodate the

needs of clients nationwide. In 2019, the company further expanded its capabilities, achieving the capacity to produce over 15,000 workstations and 12,000 chairs monthly.

AFC's dedication to sustainability is ingrained in its core, with all products manufactured responsibly within India, utilizing cutting-edge technologies to meet global quality standards. Recently, AFC acquired prominent brands including Livo, Vibrant, and X-Bench, previously owned by Wipro Enterprises' furniture business, further solidifying its position in the market.

The company's agile approach enables swift customization of solutions to meet the diverse requirements of clients, ranging from Fortune 500 corporations to educational institutions and government bodies. With a workforce of over 600 individuals, AFC fosters a culture of collaboration, innovation, and continuous learning, ensuring constant improvement in its offerings.

Operating from a vast manufacturing facility spanning 2.5 lakh sq.ft., AFC maintains the shortest delivery timelines in the industry, while upholding stringent quality and regulatory standards. Strategic enhancements in supply chain operations and logistics, informed by years of experience serving clients across various regions, have further strengthened AFC's capabilities.

1.3. Product Profile

AFC's DeskPro workstation presents a sophisticated and adaptable workspace solution designed to boost productivity and enhance the atmosphere in office settings. Integrating a range of features and design elements, the DeskPro fosters an efficient and visually pleasing workspace environment. With its customizable configurations, the DeskPro allows for tailored adjustments to meet specific workspace requirements and preferences, catering to diverse tasks and working styles.

Key features of the DeskPro workstation include:

- **Effortless Mobility:** The DeskPro's cleverly engineered legs enable easy mobility, facilitating quick rearrangements to adapt to changing work needs and collaborative activities.

- **Ample Legroom:** Designed with user comfort and workspace ergonomics in mind, the DeskPro workstation ensures generous legroom, promoting a comfortable and productive working environment.
- **Simple Installation:** Known for its ease of installation, the DeskPro system offers a significant advantage for businesses seeking swift workspace setup or reconfiguration.
- **Versatile Leg Designs:** With options such as open, loop, and slant legs, the DeskPro workstation provides versatility to match the overall aesthetics of any office space. Additionally, customizable single or dual-tone leg options enhance personalization and design flexibility.
- **Screen Variety:** DeskPro offers a selection of screen materials including fabric, glass, and sandwich glass, impacting both visual appeal and functionality, while providing privacy when needed.
- **Power & Cable Management:** Featuring seamless power and cable management, the DeskPro workstation ensures a tidy and organized workspace, reducing clutter, enhancing safety, and improving overall office aesthetics.
- **Material Customization:** The DeskPro workstation can be customized with various metal and laminate shades, allowing for seamless integration with the office's color scheme and design preferences.

Overall, AFC's DeskPro workstation stands as a versatile and meticulously designed solution for modern office environments. Emphasizing flexibility, organization, and aesthetics, its adaptability to various configurations and design preferences contributes to a more productive and visually appealing workspace.

1.4. Scope of work

The scope of work includes:

- Evaluation of Compliance Status, Compliance and Risk Policies
- Chemical risk policy, Chemical Management Plan and Impact Reduction Strategy development
- Product Level Chemical Inventory, Assessment and Optimization for the furniture product – primary and secondary data collection as required

- Chemical Assessment and Score Calculations for product level and facility level based on Globally Harmonised System (GHS) of classification

1.5. Methodology

To initiate the analysis, a questionnaire was created and shared with the client to collect information on compliance status and the presence of chemical risk policies and management plans. For organizational level, the compliance with several regulations for environment, health & safety was assessed through documents, test reports and visit to the plant.

The client extended technical assistance in compiling inventory data essential for conducting health and wellness impact analysis. They shared chemical data from their facilities and acquired additional information from their vendors as needed. The assessment is based on data provided by AFC, and secondary data available for SDS of same commercial chemical from different suppliers. Assessment and optimization of chemicals in DeskPro was performed by GHS classification for chemical concentration level above 100 ppm for each homogeneous material totalling up to 99% of product weight. Also. assessment for all chemicals in DeskPro was performed to evaluate the presence of targeted chemical eliminations as per BIFMA e3 guidelines.

Additionally, this report includes emissions testing results for the product obtained by client from the labs of TÜV Rheinland, China.

The methodology for data collection, calculations and assessment was in accordance with the BIFMA e3 guidelines for each phase of the assessment. Relevant details are available in specific sections and additional information can be found in appendices.

2. Organization level assessment

2.1. Compliance Review

Based on a thorough evaluation of AFC's practices and processes related to regulatory compliance it can be stated that the organization has exhibited a proactive approach in ensuring adherence to health and safety standards set forth by regulatory bodies. AFC also ensures to check for compliance and certifications for their approved suppliers. The organization abide by following list of regulations and showcase below certifications. Supporting documentation for compliance conformance and certificates are attached in Appendix A.

Regulations and Licences:

All relevant local, state, and federal health and safety regulations have been complied by the organizations. Please note the test reports are on the name of E-way Furniture System Pvt. Ltd., which is sister company of AFC Furniture System Pvt. Ltd. and have same plot address registered.

- Emissions to air within limits per Environmental (Protection) Act
- Emissions to water within limits per Environmental (Protection) Act
- Noise levels for DG Sets within limits for Environmental (Protection) Act
- Drinking water specifications as per WHO drinking water standards
- Hazardous waste management in accordance with HWM Rules, 2016, guided by UPPCB
- Solid waste management in accordance with SWM Rules, 2016
- Factory license under Factory Act, 1948

Policies and Certifications:

- Quality Management System: ISO 9001: 2015 Certification [from 2023-10-30 to 2026-10-29]
- Environment Management System - ISO 14001: 2015 Certification [from 2023-09-26 to 2026-09-25]
- Occupational Health & Safety Management System - ISO 45001: 2018 Certification [from 2023-09-26 to 2026-09-25]
- Energy Management System - ISO 50001: 2018 Certification [from 2023-10-23 to 2026-10-22]
- Forest Stewardship Council (FSC) Certification [from 2023-11-08 to 2028-11-07]
- EHS policy addressing Occupational Health & Safety management [Effective from 2023-04-01]

2.2. Chemical Risk Policy

With due consultation with AFC, key chemical & risk policy was developed and shared with AFC. The policy covers the minimum elements highlighted in **ANSI/BIFMA e3-2019, 7.1.2.** The policy had taken into effect at organization level and communicated to relevant stakeholders. Chemical risk policy to be made publicly available through company's website.

2.3. Chemical Management Plan

In consultation with AFC, a comprehensive Chemical Management Plan (CMP) is developed, which needs to be implemented in organization to ensure better management and tracking of chemicals and its impact. The plan should be communicated to all relevant stakeholders as guided in the CMP document.

2.4. Chemical Impact Reduction Strategy

An Impact reduction strategy was integrated in CMP, which must be followed to reduce the overall impact. The impact reduction strategy is subject to continuous improvement.

3. Product level assessment

3.1. Product Level Chemical Inventory, Assessment and Optimization

The chemical assessment was performed for all chemicals down to 100 ppm in homogeneous materials totalling up to 99% weight of the product. The pathway followed for full material inventory, assessment and optimization is highlighted in Figure 1. The weight distribution for homogeneous material in the product is presented in Table 1.

DeskPro was chosen as representative of a group of products due to its highest sales. Furthermore, for the representative product sample, the powder coating shade was chosen as POWEDER AKZONOBEL TEXTURE OF SNOW WHITE for the maximum sale within the DeskPro product range.

Table 2 presents the full material inventory with chemical concentration distribution across homogeneous materials. Table 3 represents the Hazard information identification for all chemicals above 100 ppm in the finished product. Table 4 is added to present the alternate material available for powder coating variations in product. Lastly in this section, Table 5 presents the evaluation for No GHS Cat 1 chemicals for hazard cases: Reproductive Toxicity, Carcinogenicity, Germ Cell Mutagenicity. Appendix B contains all the relevant information and data upon which calculations were performed.

Table 6 presents list and details of chemicals above 1000 ppm in the product which must be publicly disclosed for eligibility of credits under section 7.3 of ANSI/BIFMA e3 2019 guidelines.

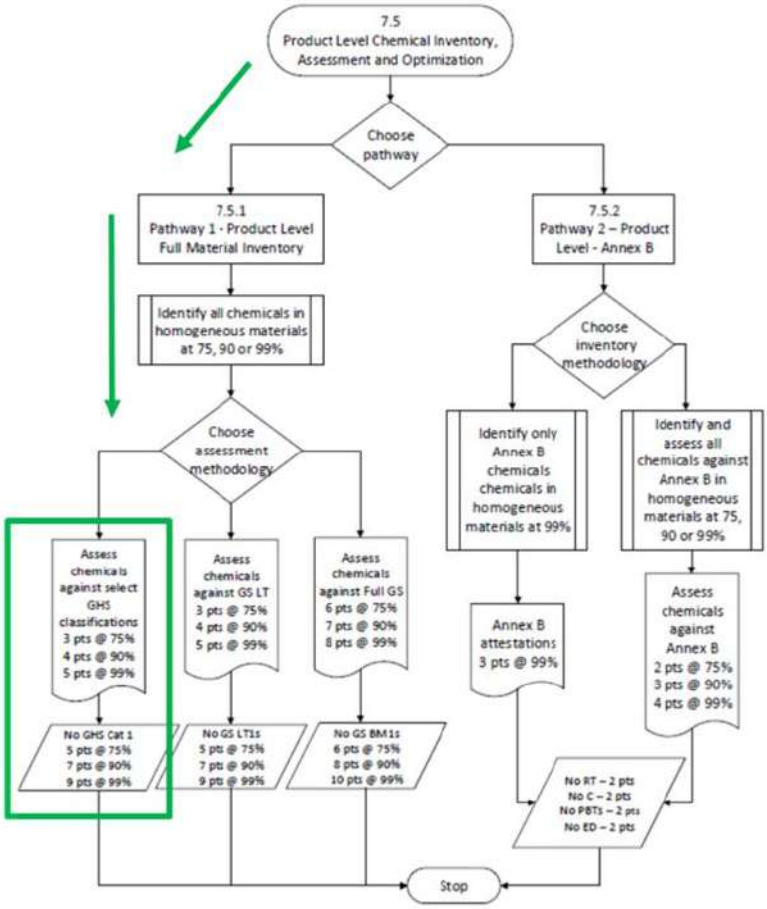

Figure 1: Pathway selected for product assessment

Table 1: Weight distribution for homogeneous materials in DeskPro

Material Type	Material	Weight (kg)	Weight (%)
Wood	Particle board	13.10	24.62
	MDF	5.00	9.39
Metal	Aluminium	6.90	12.96
	CR tube	7.20	13.53
	CRCA sheets	18.50	34.77
	GI steel sheets	2.00	3.75
Other	Packaging	0.50	0.93
Total weight of product		**53.20**	100
Total weight of wood		18.10	34.02
Total weight of metal		34.60	65.03
***Weight (Wood + Metal)**		**52.70**	99.06
*Chemical assessment is performed up to 99% of the total weight of the finished product			

Table 2: Concentration of chemicals in each homogeneous component and the final DeskPro product

Material Type	Chemical	Particle Board (ppm)	MDF (ppm)	Aluminium (ppm)	CR Tube (ppm)	CRCA Sheet (ppm)	GI Sheet (ppm)	Finished product (ppm)	More than 100 ppm	More than 1000 ppm
Wood	TARPIN OIL	28865.01	11017.18	0	0	0	0	749.67	YES	NO
	JOWAT HOTMELT 280.31 (WHITE)	9621.67	3672.39	0	0	0	0	249.89	YES	NO
	HOT MELT GLUE 280-50	2749.05	1049.26	0	0	0	0	71.40	NO	NO
	PARAFFIN WAX	10000	0	0	0	0	0	2462.41	YES	YES
	UREA	36000	0	0	0	0	0	8864.66	YES	YES
	MELAMINE	26500	0	0	0	0	0	6525.375	YES	YES
	AMMONIUM CHLORIDE	10000	0	0	0	0	0	2462.41	YES	YES
	FORMALDEHYDE	1127.12	430.20	0	0	0	0	29.27	NO	NO
Metal	KEM ECORITE AC 1112 L	0	0	9279.37	9682.27	24878.25	2689.55	874.61	YES	NO
	KEM ECORITE PH 2510	0	0	4753.31	4959.69	12743.76	1377.71	448.01	YES	NO
	KEM ECORITE CS 1602-D	0	0	606.00	632.31	1624.70	175.64	57.12	NO	NO
	KEM ECORITE AC 1209	0	0	94.69	98.80	253.86	27.44	8.92	NO	NO
	POWEDER AKZONOBEL TEXTURE OF SNOW WHITE	0	0	44645.12	46583.56	119694.83	12940.02	4207.94	YES	YES

Table 3: Hazard information based on GHS Classification for the chemicals present in DeskPro (above 100 ppm)

Chemical Name	Concentration (ppm)	Compound Name	CASRN	Hazard Class & Category
Turpentine Oil	749.67	Oil of turpentine	8006-64-2	Skin sensitisation - Category 1 Aspiration hazard - Category 1 Skin irritation - Category 2 Eye irritation - Category 2 Chronic aquatic toxicity - Category 2 Flammable liquids - Category 3 Acute toxicity, Oral - Category 4 Acute toxicity, Inhalation - Category 4 Acute toxicity, Dermal - Category 4
JOWAT HOTMELT 280.31 (WHITE)	249.89	Vinyl Resin	Unknown	Flammable liquids - category 3 Acute toxicity: inhalation - category 4 Skin corrosion/irritation - category 2 Serious eye damage/ eye irritation - category 2a Carcinogenicity - category 2
		Titanium Oxide	13463-67-7	Not a hazardous substance or mixture
KEM ECORITE AC 1112 L	874.61	Potassium Hydroxide	1310-58-3	Corrosive to metals - Category 1 Acute toxicity, Oral - Category 4 Skin corrosion - Category 1A
		Tetrapotassium pyrophosphate	7320-34-5	Eye irritation - Category 2

KEM ECORITE PH 2510	448.01	Nitric acid	7697-37-2	Oxidizing liquids - Category 3 Skin corrosion - Category 1A
		Dihydrogen hexafluoro-zirconate(2-)	12021-95-3	Acute toxicity, Oral - Category 3 Acute toxicity, Inhalation - Category 4 Acute toxicity, Dermal - Category 3 Skin corrosion/irritation - Category 1 Serious eye damage/eye irritation - Category 1
		Sodium 3-nitrobenzenesulphonate	127-68-4	Skin sensitization - Category 1 Eye irritation - Category 2
		Zirconium dinitrate oxide	13826-66-9	Oxidizing Solution – Category 2 Acute Toxicity – Category 4 Skin Corrosion/Irritation - Category 1B Eye Damage/Irritation - Category 1
		Ammonium nitrate	6484-52-2	Oxidizing solids - Category 3 Skin Corrosion / Irritation – Category 2 Acute Oral Toxicity – Category 5 Serious eye damage / Eye irritation – Category 2A Specific target organ toxicity, single exposure / Respiratory tract irritation – Category 3
AMMONIUM CHLORIDE	2462.41	Ammonium chloride	12125-02-9	Acute toxicity, Oral - Category 4 Eye irritation - Category 2
UREA	8864.66	Urea	57-13-6	Not a hazardous substance or mixture.
MELAMINE	6525.375	Melamine	108-78-1	Carcinogenicity - Category 2 Reproductive toxicity - Category 2

				Specific target organ toxicity - repeated exposure (urinary tract) - Category 2
PARAFFIN WAX	2462.41	Hydrocarbon Mixture	8002-74-2	Not a hazardous substance or mixture
POWEDER AKZONOBEL TEXTURE OF SNOW WHITE (Polyester-Epoxy Hybrid)	646.14	Titanium Dioxide	13463-67-7	Combustible dusts respiratory sensitization - category 1 Skin sensitization - category 1 carcinogenicity - category 2 Toxic to reproduction - category 2
		Limestone	1317-65-3	
		Kaolin	1332-58-7	
		propylidynetrimethanol	77-99-6	
		benzene-1,2,4-tricarboxylic acid 1,2-anhydride	552-30-7	

Table 4: Alternative material for powder coating

Chemical Name	Compound Name	CASRN	Hazard Category
Blue Matt Rapid RAPID COAT ULTRA BLUE TEXTURE HBIT003	BIS(2,4-DI-T-BUTYLPHENYL) PENTAERYTHRITOL DIPHOSPHITE	26741-53-7	Aquatic Chronic – Category 3
POWDER NUT BROWN MATT - RAPID	3,9-bis(2,4-di-tert-butylphenoxy) - 2,4,8,10-tetraoxa3,9-diphosphaspiro[5.5]undecane	26741-53-7	Aquatic Chronic – Category 3
POWDER RAL 7035 MATT-RAPID COAT	titanium dioxide	13463-67-7	Carcinogenicity - category 2 toxic to reproduction - category 2
	propylidynetrimethanol	77-99-6	
DA GREY MATT HE15005	BIS(2,4-DI-T-BUTYLPHENYL) PENTAERYTHRITOL DIPHOSPHITE	26741-53-7	Aquatic Chronic – Category 3
*POWDER GRAPHITE GREY TEXTURE - RAPID	Wollastonite	13983-17-0	Carcinogenicity - category 1a specific target organ toxicity (repeated exposure) (respiratory tract) (inhalation) - category 1
	Titanium Dioxide	13463-67-7	Not a hazardous substance or mixture
	1,3,5-tris(oxiranylmethyl)-1,3,5-triazine2,4,6(1H,3H,5H)-trione	2451-62-9	Acute toxicity (Inhalation, ingestion) - Category 3 Serious eye damage - Category 1 Skin sensitization - Category 1 Germ cell mutagenicity - Category 1B Specific target organ toxicity - repeated exposure - Category 2 Chronic aquatic hazard - Category 3
	carbon black	1333-86-4	Not a hazardous substance or mixture
	crystalline silica, respirable powder (<10 microns)	14808-60-7	Specific target organ toxicity - repeated exposure, - Category 1 (Lungs)
*POWDER GREY TEXTURE RAPID	barium sulfate	7727-43-7	Acute toxicity (oral) - category 4 skin sensitization - category 1 Germ cell mutagenicity - category 1 Carcinogenicity - category 2 Specific target organ toxicity (repeated exposure) - category 2 Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 54.9%
	titanium dioxide	13463-67-7	
	1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9	
	carbon black	1333-86-4	

			(oral), 59.1% (dermal), 84.2% (inhalation)
*POWEDER AKZONOBEL TEXTURE RAVEN BLACK	aluminium hydroxide	21645-51-2	serious eye damage - category 1 skin sensitization - category 1 germ cell mutagenicity - category 1 carcinogenicity - category 1a specific target organ toxicity (repeated exposure) - category 2
	1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9	
	carbon black, respirable powde	1333-86-4	
	Crystalline Silica as quartz not respirable,>10µm	14808-60-7	
PU WHITE GLOSSY UWHS-003	Titanium dioxide	13463-67-7	Flammable Liquid – Category 2 Skin Irritation - Category 2 Eye Irritation – Category 2A Skin Sensitization - Category 1 Carcinogenicity - Category 2 specific target organ toxicity (repeated exposure) - category 2,
	xylene [isomer mixture]	1330-20-7	
	ethylbenzene	100-41-4	
	Fatty acids, C14-18 and C16-18-unsatd., maleated	85711-46-2	
*POWDER MUNSHELL GREY TEXTURE HE0T023 RAPID COAT	barium sulfate	7727-43-7	skin sensitization - category 1 germ cell mutagenicity - category 1 carcinogenicity - category 2 specific target organ toxicity (repeated exposure) - category 2 percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 64.7% (dermal), 73.9% (inhalation)
	titanium dioxide	13463-67-7	
	1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9	
	carbon black	1333-86-4	
	1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol	26811-89-2	
*POWER PP RAL 9003 WHITE MATT RAPID COAT	titanium dioxide	13463-67-7	Skin sensitization - category 1 germ cell mutagenicity - category 1 carcinogenicity - category 2 specific target organ toxicity (repeated exposure) - category 2 percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 6.1%
	1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9	
	aluminium hydroxide	21645-51-2	
POWDER WHITE TEXTURE HWHT-001 RAPIDCOAT	ethylbenzene	100-41-4	Flammable liquids - category 2 skin irritation - category 2 eye irritation - category 2a carcinogenicity - category 2 specific target organ toxicity (repeated exposure) (central nervous system (cns), kidneys and liver) - category 2 percentage of the mixture consisting
	aluminium hydroxide	21645-51-2	
	Talc , not containing asbestiform fibres	14807-96-6	
	2,4,6-tris(dimethylaminomethyl)phenol	90-72-2	
	benzyl alcohol	100-51-6	

	xylene	1330-20-7	of ingredient(s) of unknown toxicity: 41.9%
	titanium dioxide	13463-67-7	
	Isopropyl alcohol	67-63-0	
	Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	68410-23-1	
POWER RAL2008 HELLROTORANGE RAPID COAT	Mixture	Unknown	Not a hazardous substance or mixture
*POWER PP RAL MATT-7024 RAPID COAT	barium sulfate	7727-43-7	skin sensitization - category 1 germ cell mutagenicity - category 1 carcinogenicity - category 2 specific target organ toxicity (repeated exposure) - category 2
	titanium dioxide	13463-67-7	
	1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9	
	carbon black	1333-86-4	
*POWDER GRAPHITE GREY PP - RAPID	barium sulfate	7727-43-7	skin sensitization - category 1 germ cell mutagenicity - category 1 carcinogenicity - category 2 specific target organ toxicity (repeated exposure) - category 2
	titanium dioxide	13463-67-7	
	1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	2451-62-9	
	carbon black	1333-86-4	
	1,3-Benzenedicarboxylic acid, polymer with 2,2-dimethyl-1,3-propanediol	26811-89-2	
POWDER MISTY GREY MATT HE15094 RAPID COAT	Mixture with titanium dioxide	Unknown	Not a hazardous substance or mixture
POWDER HAVELLS GREY GLOSSY HE9S009 RAPID COAT	Benzene, 1-chloro-4-(trifluoromethyl)-	98-56-6	Flammable liquid – Category 3 Reproductive toxin – Category 2
	Propylene glycol monomethyl ether acetate	108-65-6	
*POWER MET SILVER ASH	Unknown	Unknown	Unknown

GREY HSIS-001 RAPID COAT			
*POWER IVORY SATIN HI2S013 RAPID COAT	Unknown	Unknown	Unknown
*POWDER RAPID COAT NEW IVORY S/G HIVS013	Unknown	Unknown	Unknown

*** For these powder coats, product variation leads to non conformance with standards when points under Product Optimization GHS Classification - 7.5.1.3, ANSI/BIFMA e3 2019 is achieved. Organization may obtain reduced credit certification for these material variation or declare for product purchase for their non-conformance. Also public disclosure table needs to be updated for chemical number and CASRN, if credits are targeted.**

Table 5: No GHS Cat 1 evaluation chemicals present in DeskPro (above 100 ppm)

Chemical	GHS Cat 1 Carcinogenicity	GHS Cat 1 Germ Cell Mutagenicity	GHS Cat 1 Reproductive Toxicity	Supporting Information
TARPIN OIL	Not Present	Not Present	Not Present	Refer Table 3
JOWAT HOTMELT 280.31 (WHITE)	Not Present	Not Present	Not Present	
KEM ECORITE AC 1112 L	Not Present	Not Present	Not Present	
KEM ECORITE PH 2510	Not Present	Not Present	Not Present	
AMMONIUM CHLORIDE	Not Present	Not Present	Not Present	
PARAFFIN WAX	Not Present	Not Present	Not Present	
UREA	Not Present	Not Present	Not Present	
FORMALDEHYDE	Not Present	Not Present	Not Present	
POWEDER AKZONOBEL TEXTURE OF SNOW WHITE	Not Present	Not Present	Not Present	

Table 6: Chemicals present in DeskPro above 1000 ppm for public disclosure

Chemical Name	CASRN
AMMONIUM CHLORIDE	12125-02-9
UREA	57-13-6
MELAMINE	108-78-1
PARAFFIN WAX	8002-74-2
POWEDER AKZONOBEL TEXTURE OF SNOW WHITE	13463-67-7, 7727-43-7, 54553-90-1

3.2 Low emitting Furniture

Emission testing was arranged by Client and performed by TÜV Rheinland Hong Kong Ltd., China according to the requirements of BIFMA X7.1-2011 (R-2021). Test reports are attached in Appendix C, and results are extracted to below tables.

Table 7: Evaluation of emissions at 168 hours for prerequisite in ANSI/BIFMA e3-2019, 7.6.1

Chemical Contaminant	Emissions Limits Open Plan Workstation	Emissions Limits Private Office Workstation	Test result at 168 h	Evaluation
Formaldehyde (µg/m^2hr)	42.3	85.1	--	Pass
TVOC (µg/m^2hr)	345	694	34.27	Pass
Total Aldehydes (µmol/m^2hr)	2.8	5.7	--	Pass
4-Phenylcyclohexene (µg/m^2hr)	4.5	9.0	--	Pass

Table 8: Evaluation of individual VOCs at 336 hours according to ANSI/BIFMA e3-2019, 7.6.2

Compound name	CAS no.	Open Plan Maximum Allowable Emission Factor (µg/m^2h)	Private Office Maximum Allowable Emission Factor (µg/m^2h)	Calculated emission factor at 336h (µg/m^2h)	Evaluation
Butanoic acid	107-92-6	--	--	--	Pass
1-Butanol	71-36-3	--	--	2.02	Pass
Octane	111-65-9	--	--	--	Pass
Nonane	111-84-2	--	--	1.14	Pass
Decane	124-18-5	--	--	1.14	Pass
Dodecane	112-40-3	--	--	2.89	Pass
Tridecane	629-50-5	--	--	1.91	Pass
Tetradecane	629-59-4	--	--	3.98	Pass
Pentadecane	629-62-9	--	--	--	Pass
Hexadecane	544-76-3	--	--	2.29	Pass
Ethylbenzene	100-41-4	689	1392	--	Pass
2-Butanone	78-93-3	--	--	4.03	Pass
2-Pentanone	107-87-9	--	--	1.14	Pass
2-Heptanone	110-43-0	--	--	0.82	Pass
Cyclohexanone	108-94-1	--	--	--	Pass
Butyrolactone	96-48-0	--	--	--	Pass
2(3H)-Furanone, 5-ethyldihydro-	695-06-7	--	--	--	Pass
5-Tetradecene, (E)-	41446-66-6	--	--	--	Pass
2(3H)-Furanone,	1679-49-8	--	--	1.14	Pass

dihy- dro-4-methyl-					
4-Phenylcyclohexene	4994-16-5	--	--	--	Pass
Total of all VOC (TVOC) (C6-C16)	--	--	--	14.42	Pass
Formaldehyde	50-00-0	11	23	--	Pass
Acetaldehyde	75-07-0	48	97	--	Pass
Total aldehydes	--	--	--	--	Pass

Table 9: Evaluation of individual VOCs at 336 hours according to CDPH/ EHLB Standard V1.2

Substance	CAS no.	Emission factor at 336 hours ($\mu g/m^2h$)	Allowable Concentration ($\mu g/m^3$)	Open-plan workstation estimated concentration ($\mu g/m^3$)	Evaluation
Butanoic acid	107-92-6	--	--	--	Pass
1-Butanol	71-36-3	2.02	--	2.92	Pass
Octane	111-65-9	--	--	--	Pass
Nonane	111-84-2	1.14	--	1.66	Pass
Decane	124-18-5	1.14	--	1.66	Pass
Dodecane	112-40-3	2.89	--	4.19	Pass
Tridecane	629-50-5	1.91	--	2.76	Pass
Tetradecane	629-59-4	3.98	--	5.77	Pass
Pentadecane	629-62-9	--	--	--	Pass
Hexadecane	544-76-3	2.29	--	3.31	Pass
Ethylbenzene	100-41-4	--	1000	--	Pass
2-Butanone	78-93-3	4.03	--	5.84	Pass
2-Pentanone	107-87-9	1.14	--	1.66	Pass
2-Heptanone	110-43-0	0.82	--	1.19	Pass
Cyclohexanone	108-94-1	--	--	--	Pass
Butyrolactone	96-48-0	--	--	--	Pass
2(3H)-Furanone, 5-ethyldi- hydro-	695-06-7	--	--	--	Pass
5-Tetradecene, (E)-	41446-66-6	--	--	--	Pass
2(3H)-Furanone, dihydro-4-methyl-	1679-49-8	1.14	--	1.66	Pass
4-Phenylcyclohexene	4994-16-5	--	--	--	Pass
Total of all VOC (TVOC) (C6-C16)	--	14.42	--	20.89	Pass
Formaldehyde	50-00-0	--	9	--	Pass
Acetaldehyde	75-07-0	--	70	--	Pass
Total aldehydes	--	--	--	--	Pass

Table 10. Evaluation of formaldehyde at 336 hours for ANSI/BIFMA e3-2019, 7.6.3

Compound name	CAS no.	Open Plan Workstation Emission Factor (μg/m²h)	Private Office Workstation Emission Factor (μg/m²h)	Calculated emission factor at 336h (μg/m²h)	Evaluation
Formaldehyde	50-00-0	6.2	12.5	--	Pass

3.3 Category specific advances – Targeted chemical elimination

Table 11 presents the summary of assessment. There are no specific restrictions required by purchasers to be publicly disclosed.

Table 11. Targeted chemicals assessment for ANSI/BIFMA e3-2019, 7.4.4

Targeted Chemicals	Assessment Remarks	Supporting information
flame retardants	Not Present	Refer Table 3
per- and poly-fluorinated compounds	Not Present	Refer Table 3
chemical antimicrobials	Not Present	Refer Table 3
polyvinyl chloride (PVC)	Less than 1%	Refer Table 3
formaldehyde and other VOCs	Within Limits as per ANSI/BIFMA e.3-2019, 7.6.1 & 7.6.2	Table 7, Table 8 and Table 9

4. Facility-level assessment

4.1. Operations & Maintenance chemicals

An exhaustive list of all operations and maintenance chemicals was shared by AFC. For the shared chemicals hazard information was obtained based on SDS available over web. Table 12 and Table 13 presents the chemical & hazard information for all these chemicals and Table 14 presents an evaluation of this chemicals against criterion mentioned in section 7.7.1, ANSI/BIFMA e3 1019 standard. Appendix D contains average monthly consumption details for consumables and cleaning chemicals.

Table 12. Chemical information for consumable oil and grease at AFC

Chemical Description	Chemical Composition	CASRN	Hazard Class & Category
Hydraulic Oil 68	Base Oil - Highly Refined Distillates (Petroleum), Solvent-Refined Heavy Paraffinic 2,6-Di-Tert-Butylpheno	64741-88-4, 128-39-2	Not a hazardous substance or mixture
Grease Epo	Base Lubricant with Zinc Dialkyldithiophosphate	68649-42-3	Not a hazardous substance or mixture
Engine Oil 15w40	Interchangeable Low Viscosity Base Oil Zinc Dialkyldithiophosphate Calcium Long Chain Alkaryl Sulphonate Calcium Alkaryl Sulphonate	68784-31-6 722503-69-7 722503-68-6	Not a hazardous substance or mixture
Diesel	Fuels, Diesel Alkanes, C10-20-Branched And Linear	68334-30-5 928771-01-1	Flammable Liquids - Category 4 Acute Toxicity (Inhalation) - Category 4 Skin Corrosion/Irritation - Category 2 Carcinogenicity - Category 2 Specific Target Organ Toxicity - Repeated Exposure (Bone Marrow, Liver, Thymus) - Category 2 Aspiration Hazard - Category 1
Tarpene Oil	Oil Of Turpentine	8006-64-2	Flammable Liquids - Category 3 Acute Toxicity, Oral - Category 4 Acute Toxicity, Inhalation - Category 4 Acute Toxicity, Dermal Category 4 Skin Irritation - Category 2 Eye Irritation - Category 2 Skin Sensitisation - Category 1 Aspiration Hazard - Category 1

			Chronic Aquatic Toxicity - Category 2
Grease L32n	Alkanes, C7-10-Iso- Dec-1-Ene, Homopolymer, Hydrogenated + 7-Methylpentadecane; Tetra-1-Decen, Dimer, Trimer, Hydrogenated Propan-2-Ol Isobutane Propane Butane	90622-56-3 292-458-5 68037-01-4, 1000172-11-1 67-63-0 200-661-7 603-117-00-0 75-28-5 200-857-2 601-004-00-0 74-98-6 200-827-9 601-003-00-5 106-97-8 203-448-7 601-004-00-0	Flammable Liquid – Category 2 Skin Irritation – 2 Specific target organ toxicity, single exposure - Category 3 Aspiration hazard - Category 1 Aquatic Chronic Toxicity – Category 2 Eye Irritation - Category 2
Mobil Oil 40	Base Oil With Zinc Alkyl Dithiophosphate	113706-15-3	Not a hazardous substance or mixture
Transformer Oil (Paraffin Based) 15-335	Distillate (Petroleum), Hydrotreated Light Paraffinic Distillates (Petroleum), Hydrotreated Light Naphthenic	64742-55-8 64742-53-6	Not a hazardous substance or mixture
Air Compressor Oil - 46	Hydrogenated Polydecene	68037-01-4	Not a hazardous substance or mixture
Cutting Oil - 222	Mineral Base Oil Additives	64742-65-0	Not a hazardous substance or mixture
Gear Oil - 90	Highly Refined Mineral Oil Long Chain Alkenyl Amine Long Chain Alkyl Amine Mineral Oil Solvent Dewaxed	64742-62-7	Not a hazardous substance or mixture

Table 13. Chemical information for cleaning materials at AFC

Chemical Description	Chemical Composition	Casrn	Hazard Class & Category
Taski R-1	Alcohols, C10-16, Ethoxylated (7-<15 Eo) 2-Aminoethanol Tetrasodium Ethylene Diamine Tetraacetate	68002-97-1 141-43-5 64-02-8	Skin Irritation - Category 2 Eye Damage - Category 1
Taski R-2	Alcohols, C10-16, Ethoxylated (7-<15 Eo) 2-Aminoethanol	68002-97-1 141-43-5 64-02-8	Skin Irritation - Category 2 Eye Damage - Category 1 Aquatic Chronic Toxicity – Category 3

	Tetrasodium Ethylene Diamine Tetraacetate Alkyl (C12-16) Dimethylbenzyl Ammonium Chloride	68424-85-1	
Taski R-3			Not a hazardous substance or mixture
Taski R-5			Not a hazardous substance or mixture
Taski R-6	Hydrochloric Acid Oleyl Bis(2-Hydroxyethyl)Amine	7647-01-0 25307-17-9	Skin Irritation - Category 2 Eye Damage – Category 1 Aquatic Chronic Toxicity – Category 3 Metal Corrosivity – Category 1
Taski R-7	Sodium Alkylbenzenesulphonate Alcohols, C10-16, Ethoxylated (7-<15 Eo)	90194-45-9 68002-97-1	Eye Damage - Category 1
Taski R-9	Alcohols, C10-16, Ethoxylated (7-<15 Eo) Citric Acid	77-92-9 68002-97-1	Eye Irritation - Category 2
Taski D-7	Hydrocarbons, C12-C18, N-Alkanes, Isoalkanes, Cyclics, Aromatics (<2%)	-	Not a hazardous substance or mixture
Taski '101		Unknown	Eyes: Irritation With Pain, Swelling and Redness May Develop. Skin: Irritation Or Dryness develops with Long Contact. Ingestion: If Swallowed, Diarrhoea, Nausea and Vomiting May Occur. Inhalation: Irritation Of Respiratory Tract May Develop. Sensitive Skin.
Taski '103	Alkyl Eo/Po	68551-13-3	Eye Irritant, Prolonged Contact May Cause Skin Irritation.
Phenyl	Coal Tar Phenols Hydrocarbons Soap	Unknown	Skin Irritation – Category 2 Eye Irritation – Category 2
Handwash Soap (Normal)	Sodium Poly(Oxyethylene) Dodecyl Ether Sulfate Sodium Chloride Glycerin Alkylamidopropylbetaines Sulfuric Acid, Mono-C10-16-Alkyl Esters, Sodium Salts Ethanol	68585-34-2 7647-14-5 56-81-5 61789-40-0 68585-47-7 64-17-5	Eye Irritation - Category 2A
Handwash Soap (Dettol)	Chloroxylenol Pine Oil Isopropanol	88-04-0 8002-09-3 67-63-0	Eye Irritation

Odonil	Butane Propane Propane, 2-Methyl-	0000106-97-8 0000075-28-5 0000074-98-6	Flammable Gas – Category 1
Naphthalene Balls	Naphthalene	91-20-3	Flammable Solids - Category 2 Acute Toxicity, Oral - Category 4 Carcinogenicity - Category 2 Acute Aquatic Toxicity - Category 1 Chronic Aquatic Toxicity - Category 1

Table 14. Assessment for consumables and cleaning chemicals for impact reduction according to 7.7.2, ANSI/BIFMA e3 2019 standards

Hazard Class	Presence of Hazard Class	Chemicals of Concern	Supporting Information
carcinogenicity	Present	Diesel Naphthalene Balls	Table 11 and Table 12
germ cell mutagenicity	Not Present	-	
reproductive toxicity	Not Present	-	
hazardous to the aquatic environment	Present	Tarpene Oil Grease L32N Taski R-2 Taski R-6 Naphthalene Balls	

4.2. Process Chemicals

Three gate to gate processes were identified including one process line at the supplier end. Assessment is presented in Table 15.

Figure 2: Gate-to-gate boundary for wooden item processing at AFC

Figure 3: Gate-to-gate boundary for metal sheet processing at AFC

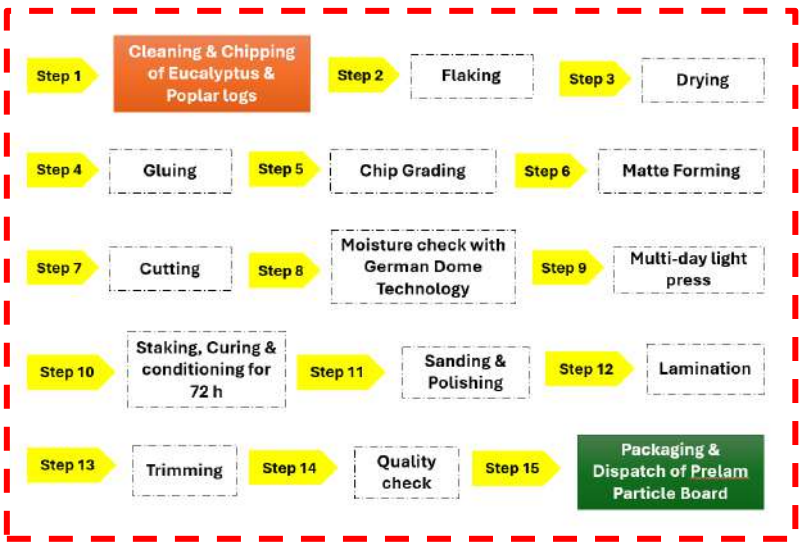

Figure 4: Gate-to-gate boundary for Prelam board fabrication at Action Tesa (Supplier)

Table 15: Process chemicals information in three gate-to-gate process including one supplier line

Wooden Item Process for Manufacturing			
Chemical Description	**Chemical Composition**	**CASRN**	**Hazard Class & Category**
TARPIN OIL	Oil of turpentine	8006-64-2	Skin sensitisation - Category 1 Aspiration hazard - Category 1 Skin irritation - Category 2 Eye irritation - Category 2 Chronic aquatic toxicity - Category 2 Flammable liquids - Category 3 Acute toxicity, Oral - Category 4 Acute toxicity, Inhalation - Category 4 Acute toxicity, Dermal - Category 4
FEVICOL NORMAL 50KG DRUM	Vinyl acetate homopolymer	Unknown	Skin irritation - Category 2 Eye irritation - Category 2
FEVICOL FAST TACK	Acetone, Butane, n-Hexane, Propane, 2-Methylpentane, Methyl Acetate, 3-Methylpentane, Cyclohexane	67-64-1, 106-97-8, 110-54-3, 110-54-3, 107-83-5, 79-20-9, 96-14-0, 110-82-7	Flammable aerosols - Category 1 Skin corrosion/irritation - Category 2 Serious eye damage/eye irritation - Category 2A Reproductive toxicity (fertility) - Category 2 Specific target organ toxicity, single exposure (narcotic effects) - Category 3 Specific target organ toxicity, repeated exposure - Category 2 Aspiration hazard - Category 1
JOWAT HOTMELT 280.31 (WHITE)	Vinyl Resin	Unknown	Flammable liquids - category 3 Acute toxicity: inhalation - category 4 Skin corrosion/irritation - category 2 Serious eye damage/ eye irritation - category 2a Carcinogenicity - category 2
	Titanium Oxide	13463-67-7	Not a hazardous substance or mixture
HOT MELT GLUE 280-50	Hot Melt Adhesive & Vinyl Resin	Unknown	Not a hazardous substance or mixture
Sheet Metal Items Process for Manufacturing			
Chemical Description	**Chemical Composition**	**CASRN**	**Hazard Class & Category**
Welding Rod	-	-	-
KEM ECORITE AC 1112 L	Potassium Hydroxide	1310-58-3	Corrosive to metals - Category 1 Acute toxicity, Oral - Category 4 Skin corrosion - Category 1A

	Tetrapotassium pyrophosphate	7320-34-5	Eye irritation - Category 2
KEM ECORITE PH 2510	Nitric acid	7697-37-2	Oxidizing liquids - Category 3 Skin corrosion - Category 1A
	Dihydrogen hexafluoro-zirconate(2-)	12021-95-3	Acute toxicity, Oral - Category 3 Acute toxicity, Inhalation - Category 4 Acute toxicity, Dermal - Category 3 Skin corrosion/irritation - Category 1 Serious eye damage/eye irritation - Category 1
	Sodium 3-nitrobenzenesulphonate	127-68-4	Skin sensitization - Category 1 Eye irritation - Category 2
	Zirconium dinitrate oxide	13826-66-9	Oxidizing Solution – Category 2 Acute Toxicity – Category 4 Skin Corrosion/Irritation - Category 1B Eye Damage/Irritation - Category 1
	Ammonium nitrate	6484-52-2	Oxidizing solids - Category 3 Skin Corrosion / Irritation – Category 2 Acute Oral Toxicity – Category 5 Serious eye damage / Eye irritation – Category 2A Specific target organ toxicity, single exposure / Respiratory tract irritation – Category 3
KEM ECORITE CS 1602-D	Fatty alcohols, C12-15, EO-PO Alcohols, C12-14, ethoxylated (9-EO)	68551-13-3 68439-50-9	Acute Toxicity (Oral) - Category 5 Skin Corrosion/Irritation - Category 2 Acute Hazard to The Aquatic Environment - Category 1 Long-term Hazard to the Aquatic Environment - Category 3 Acute Toxicity Category 4 (Dermal) Acute Toxicity Category 4 (Inhalation) Eye Damage category 1 Specific Target Organ Toxicity - Single Exposure Category 3
KEM ECORITE AC 1209	Nitric Acid	7697-37-2	Oxidizing liquids - Category 3 Skin corrosion - Category 1A
KEM ECORITE 2803	Ammonium hydrogencarbonate	1066-33-7	Acute toxicity, Oral - Category 4
Powders for powder coating	Table 3 & Table 4 contains chemical details for all Powders		
Prelam board fabrication from eucalyptus wood (Supplier)			
Chemical Description	**Chemical Composition**	**CASRN**	**Hazard Class & Category**
Formaldehyde	Formaldehyde Methanol Water	50-00-0	Flammable liquids - Category 3 Acute toxicity, Oral - Category 3 Acute toxicity, Inhalation - Category 2 Acute toxicity, Dermal - Category 3

			Skin corrosion/irritation - Category 1 Serious eye damage/eye irritation - Category Skin sensitization - Category 1 Germ cell mutagenicity - Category 2 Carcinogenicity - Category 1B Specific target organ toxicity - single exposure (Eyes, Central nervous system)- Category 1 Specific target organ toxicity - single exposure (Respiratory system) - Category 3
Melamine	Melamine	108-78-1	Carcinogenicity - Category 2 Reproductive toxicity - Category 2 Specific target organ toxicity - repeated exposure (urinary tract) - Category 2
Urea	Urea	57-13-6	Not a hazardous substance or mixture.
Paraffin Wax	Hydrocarbon Mixture	8002-74-2	Not a hazardous substance or mixture
Ammonium Chloride	Ammonium chloride	12125-02-9	Acute toxicity, Oral - Category 4 Eye irritation - Category 2

Evaluation: Process chemicals (including powders) are not free of classes — carcinogenicity, germ cell mutagenicity, reproductive toxicity, and hazardous to the aquatic environment, hence they cannot earn 4 credits under 7.7.2.2 ANSI/BIFMA e3 2019 standard. Further, under point c, of section 7.7.2.2 will not earn credit as chemicals are **not** free of 3 GHS classes and associated categories as listed in 7.7.2.1 (Figure 5), namely – Acute toxicity (category 1), Hazardous to aquatic environment (acture, chronic – category 1) and Hazardous to ozone layer (category 1). The chemical KEM ECORITE CS 1602-D contributes to hazard category - Hazardous to aquatic environment (acture, chronic – category 1, having composition of hazard chemical (Fatty alcohols, C12-15, EO-PO 68551-13-3) more than 0.1%. Further there is no comparative assessment for chemical with a lesser impact.

GHS Hazard Class	GHS Hazard Categories
Acute toxicity	1
Skin corrosion/irritation	1, 1A, 1B
Serious eye damage/eye irritation	1
Respiratory or skin sensitization	1, 1A
Germ cell mutagenicity	1, 1A, 1B
Carcinogenicity	1, 1A, 1B
Reproductive toxicity	1, 1A, 1B
Specific target organ toxicity single exposure	1
Specific target organ toxicity repeated exposure	1
Aspiration hazard	1
Hazardous to the aquatic environment	Acute 1, Chronic 1
Hazardous to the ozone layer	1

Figure 5: Process Chemical GHS Hazard Class Categories as listed in 7.7.2.1 ANSI/BIFMA e3 2019 standard

5. Summary of assessment

5.1. Scorecard based on assessment for section 7, ANSI/BIFMA e3 2019.

Based on the overall assessment, compliance and credits in favour of organization and their product is presented in Table 16, which is in accordance with self-assessment checklist provided as Annex D in ANSI/BIFMA e3 2019 standard.

Table 16. Scorecard/self-assessment checklist for overall assessment

7.0 Health & Wellness Impacts		Points Available			Points Achieved	Relevant Section & Remarks
		Organizational	Facility	Product		
7.1.1	Prerequisite – Demonstration of Compliance	Required Credit			✓	Section 2.1
7.1.2	Prerequisite – Key Chemical and Risk Policies	Required Credit			✓	Section 2.2
7.2	Chemical Management Plan (CMP)	1			1	Section 2.3
7.3.1	Chemical Impact Reduction Strategy	1			1	Section 2.4
7.3.2.1	Assessing Chemicals for Substitution, Develop Plan	1			-	Assessment Not Performed
7.3.2.2	Assessing Chemicals for Substitution, Implement Plan	1			-	Assessment Not Performed
7.4	Category Specific Advances (maximum of 3 pts available)			3	1	
7.4.1	Ergonomics (1 point)					Assessment maybe performed by AFC
7.4.2	Lighting to Mitigate Health Risks (1 point)					Not in the scope of product
7.4.3	Infrared Lighting (1 point)					
7.4.4	Targeted Chemical Elimination (1point)					Section 3.3
7.5.1.1	Pathway 1 - Product Level Full Material Inventory for Chemical Assessment (2 to 8 points)			8	5	Section 3.1
7.5.1.3	Pathway 1 - Product Optimization GHS classification (3 to 7 Points)			10	9	
7.5.3	Product Chemical Disclosure (1 to 4 points)			4	4	Table 6, section 3.1
7.6.1	Prerequisite - Low Emitting Furniture, HCHO			Required Credit	✓	Section 3.2

	≤ 61.4 ug/m2-hr					
7.6.2	Low Emitting Furniture, HCHO ≤ 16.5 ug/m2-hr			1	1	
7.6.3	Low Emitting Furniture, HCHO ≤ 9.0 ug/m2-hr			1	1	
7.7.1.1	Maintenance/Operations Chemical Identification and Assessment		1		1	Section 4.1
7.7.1.2	Reductions of Maintenance/Operations Chemicals		1		1	
7.7.2.1	Process Chemical Identification and Assessment		1		1	Section 4.2
7.7.2.2	Reduction or Elimination of Process Chemicals		4		0	
	Total Credits Available	**4**	**7**	**27**	-	
	Total Credits Achieved	2	3	21		

5.2. Post assessment activities for the organization

AFC must complete following tasks for meeting the requisites and obtaining the credits relating to this assessment:

- Make the Key Chemical & Risk Policy publicly available
- Chemical Management Plan should be communicated with key stakeholders
- Table 6 with chemicals above 1000 ppm is disclosed publicly for credits under section 7.5.3 of ANSI/BIFMA e3 2019 standards

5.3. Recommendations for further improvement

Below recommendations are made based on the assessment for adhering to compliance and making further improvisation in future:

- Maintain chronological & historical record of compliance for air, water, noise and solid/hazard waste regulations including audits for health & safety
- Safety Data Sheets (SDS) to be mandated by suppliers
- GHS pictograms are communicated to worker dealing directly with the chemicals
- Inventory and tracking of chemicals to be performed diligently
- One dedicated personal (internal/external) for chemical management and impact reduction as part of continuous improvement

6. References

1) ANSI/BIFMA e3-2019 Furniture Sustainability Standard (2019) *Business & Institutional Furniture Manufacturers Association / American National Standard*
2) ANSI/BIFMA e3-2019 Furniture Sustainability Standard – Guidance Manual (2019) *Business & Institutional Furniture Manufacturers Association / American National Standard*
3) GHS Classification (Rev.10, 2023) Summary, https://pubchem.ncbi.nlm.nih.gov/ghs/

Uttar Pradesh Pollution Control Board
Building. No TC-12V Vibhuti Khand, Gomti Nagar, Lucknow-226010
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189583/UPPCB/GreaterNoida(UPPCBRO)/CTO/both/GREATER NOIDA/2023 **Date: 10/08/2023**

To,

M/s

E WAY FURNITURE SYSTEMS PVT LTD

Plot No 33, Ecotech 12, Greater Noida, Gautam Budh Nagar UP ,GAUTAM BUDH NAGAR,201310

Application Id-22156080

Consolidated Consent to Operate and Authorisation hereinafter referred to as the CCA (Consolidated Consent & authorization) (Fresh) under Section-25 of the Water (Prevention & Control of Pollution) Act, 1974 and under Section-21 of the Air (Prevention & Control of Pollution) Act, 1981

CCA is hereby granted to **E WAY FURNITURE SYSTEMS PVT LTD** located at **Plot No 33, Ecotech 12, Greater Noida, Gautam Budh Nagar UP ,GAUTAM BUDH NAGAR,201310**. subject to the provisions of **the Water Act, Air Act** and the orders that may be made further and subject to following terms and conditions :-

1. This CCA E WAY FURNITURE SYSTEMS PVT LTD **granted for the period from 01/08/2023 to 31/07/2026** and valid for manufacturing of following products.

S No	Product	Quantity	Unit
1	Modular Furniture	3000	Metric Tonnes/Month

2. Conditions under Water(Prevention and Control of Pollution) Act -1974 as amended :-

(i) The daily quantity of effluent discharge (KLD) :-

Kind of Effluent	Quantity(KLD)	Treatment facility	Discharge point
Domestic	**3.0**	**STP**	**Industrial Drain**
Industrial	**15.0**	**ETP**	**Industrial Drain**

(ii) Trade Effluent Treatment and Disposal :-The applicant shall operate Effluent Treatment Plant consisting of primary/secondary and tertiary treatment as is required with reference to influent quantity and quality.
In case of stoppage of functioning of ETP, production has to be stopped immediately and this Board has to be intimated by fax/phone/email with a report in this regard to be dispatched immediately.
(iii) The treated effluent shall be recycled to the maximum extent and should be reused within the premises for gardening etc. Quality of the treated effluent shall meet to the following general and specific standards as prescribed under Environment (Protection) Rules, 1986 and applicable to the unit from time-to-time :-

Industrial Effluent Quality Standard

S.No.	Parameter	Standard
1	Total Suspended Solids (TSS)	50 mg/l

2	Chemical Oxygen Demand (COD)	150 mg/l
3	Biological Oxygen Demand (BOD)	20 mg/l
4	Oil & Grease	10 mg/l

(iv) Sewage Treatment and Disposal :- The applicant shall provide comprehensive STP as is required with reference to influent quantity and quality.In case of stoppage of functioning of STP, production has to be stopped immediately and this Board has to be intimated by fax/phone/email with a report in this regard to be dispatched immediately.

(v) The treated sewage shall be reused in gardening as far as possible. The STP shall be maintained continuously so as to achieve the quality of the treated sewage to the following standards.

S No.	Parameters	Standards
1	pH	5.0-9.0
2	BOD (mg/L)	20 mg/l
3	TSS (mg/L)	50 mg/l
4	Fecal Coliform (MPN/100ml)	<1000

3. Conditions under Air (Prevention and Control of Pollution) Act -1981 as amended :-

i) The applicant shall use following fuel and install a comprehensive control system consisting of control equipment as required with reference to generation of emissions and operate and maintain the same continuously so as to achieve the level of pollutants to the following standards.

Air Pollution Source Details

S No.	Air Pollution Source	Type of fuel	Stack no	Control Device	Height of Stack
1	Baking Oven	PNG	1	Particulate Matter	1.0 mtr. above roof top
2	Genset-250 KVA (01 Nos.)	Duel Fuel (PNG 70% Diesel 30%)	2	Particulate Matter	3.5 mtr. above roof top

Emmission Quality Standards

S No.	Stack no	Parameters	Standards
1	1	Particulate Matter	As per EP Act, 1986 and CAQM
2	2	Particulate Matter	0.2 g/kW-hr
3	2	Oxides of Nitrogen	4.0 g/kW-hr
4	2	Quantity of Emission	3.5 g/kW-hr for CO

In case of stoppage of functioning of air pollution control equipment, production has to be stopped immediately and this Board has to be intimated by fax/phone/email with a report in this regard to be dispatched immediately

(ii) The unit will not use any type of restricted fuel.

iii) Noise from the D.G. Set and other source(s) should be controlled by providing an acoustic enclosure as is required for meeting the ambient noise standards for night and day time as prescribed for respective

areas/zones (Industrial, Commercial, Residential, Silence) which are as follows :-
Day time : from 6.00 a.m. to 10.00 p.m., Night time: from 10.00 p.m. to 6.00 a.m.

Standards for Noise level in db(A) Leq	Industrial Area		Commercial Area		Residential Area		Silence Zone	
	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time
	75	70	65	55	55	45	50	40

4. Essential documents to be submitted by the Industry/Unit as Applicable :-

(i) Environment Statement in Form-V of Environment (Protection) Rules, 1986.

(ii) Quarterly compliance report of the CCA, photograph of ETP/APCs/Waste Storage Area.

5. Competent Authority reserves the right to change/modify/add any time any condition of this CCA.

6. Unit has to comply with the following specific & general conditions. Non compliance of any provision of this CCA and provisions of the Water Act, Air Act and Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 will results in legal action under the aforesaid Acts and Rules.

7. In compliance to the G.O 1011/81-7-2021-09 (Writ)/2016 dated.13.10.2021 issued by Department of Environment, Forest and Climate Change, Uttar Pradesh. You are directed to develop Miyawaki Forest as per the SOP available at URL:-http://www.upecp.in/TrainingSession.aspx for ensuring timely compliance of this direction, you are hereby directed to submit a bank guarantee with minimum validity of one year of the amount equivalent to the sum of initial consent fees (Air and Water) or Rs. 50,000/- (Rs. Fifty Thousand Only) whichever is more, within 30 days from the date of issuance of this certificate. In case of non-compliance of this direction, your consent will be revoked by the Board.

8. If the unit uses the ground water and requires the permission from SGWA/CGWA for water abstraction then the industry will have to obtain No objection certificate for abstraction of ground water. It will be the responsibility of the industry to comply with the various conditions of the NOC obtained from the competent authority and submit to the Board, within 3 months time failing which CTO will be revoked.

General Conditions:-

1. The applicant shall get analysed the samples of effluent/emission/hazardous wastes at least once in a three month from the laboratory recognized by the MoEF and shall report to the UPPCB.

2. The applicant shall however, not without the prior consent of the Board bring into use any new or altered outlet for the discharge of effluent or gases emission or sewage waste from the unit.

3. Treated Industial waste water and domestic waste water shall be disposed jointly at one disposal point. The applicant shall provide discharge measurement equipment at final disposal point.

4. The applicant shall strictly comply with conditions of this CCA and submit compliance report of stipulated conditions within 30 days of receipt of this CCA. If at any point of time, it is found that the industry is not complying with stipulated conditions or any further direction/instruction issued by the Board, legal action shall be initiated against the applicant.

5. The applicant shall maintain good house keeping. All valves/pipes/sewer/drains etc. must be leak-proof

6. The industry shall provide uninterrupted entry to the STP/ETP inlet and outlet points, Air Pollution Control equipment and stack for smooth sampling/monitoring of efficiency of pollution control systems.

7. The industry shall provide Inspection Book at the time of inspection to the Board's officials.

8. Whenever due to any accident or other unforeseen act or event, such emission occurs or is apprehended to occur in excess of standards laid down, such information shall be reported to the Board's offices and all other concerned offices. In case of failure of pollution control equipment, the production process connected to it shall be stopped with immediate effect.

9. The industry shall operate in a manner so that all emissions be emitted through designated chimney/stack only.
10. In case of any damage to the agriculture productivity, human habitation etc. by the operation of industry, it shall be imperative to stop production in the industry with immediate effect and such information shall be reported to Board's offices. The industry shall be liable to pay compensation also in such cases as decided by the Competent Authority.
11. The applicant shall apply before the 60 days of expiry of CCA or any change in production types/ production capacity/manufacturing process/capacity enhancement etc. or any change in effluent discharge point or emission point
12. The Board reserves the right to revoke/add/modify any stipulated condition issued along with CCA, as may be necessary.

Specific Conditions:-

1. This CTO is valid for production only in conforming zone.
2. No water and air pollution source will be added/ installed by the unit without prior permission from State Pollution Control Board.
3. The unit is not allowed to increase the electricity load without prior permission from State Pollution Control Board.
4. Operation of ETP cum STP established in the industry should be continued. The untreated effluent should not be disposed off by the industry at any circumstances.
5. For ground water is to be extracted for any kind of use in the premise, then it is mandatory to obtain Registration and/or NOC from the UP Ground Water Department. The copy of Registration and/or NOC should be sent to this office within three months in compliance with the UP Ground Water (Management and Regulation) Act, 2019. In case of violation, Environmental Compensation shall be imposed and legal proceedings will be initiated against the unit and this consent order will automatically be considered revoked.
6. Metal surface treatment or process such as pickling/ electroplating/paint stripping/ heat treatment using cyanide bath/ phosphating or finishing and anodizing / enamellings/ galvanizing etc. work is prohibited in production process of industry.
7. Industry shall submit quarterly monitoring reports of all stacks and ambient air quality from a certified/approved laboratory.
8. The industry should ensure compliance of orders/instructions issued by Commission for Air Quality Management & Adjoining Areas (CAQM&AA) from time to time.
9. The air pollution control system established in the industry should be operated and maintained in such a way that the parameter of air polluting standards in the gaseous emissions generated by the industry is as per the prescribed standards.
10. Strict compliance of orders/instructions issued from time to time for NCR region by Hon'ble National Green Tribunal, New Delhi and Commission for Air Quality Management in National Capital Region and Adjoining Areas (CAQM) and Central Pollution Control Board, New Delhi should be ensured.
11. Only fuel approved by the Commission for Air Quality Management in National Capital Region and Adjoining Areas (CAQM) should be used in the industry.
12. Unit shall not operate any DG sets having a capacity from 19KW to less than 125KW without converting it into dual fuel system (70% Gas + 30% Diesel) and shall not use any DG set having a capacity from 125KW to 800KW without installation of Retrofitted Emission Controlled Devices (RECD) through certified vendors/agencies after date 30.09.2023, in compliance of CAQM direction no. 73 dated 02.06.2023, failing which this CTO shall be deemed void.
13. The unit shall achieve the new emission standards laid down by CAQM vide direction no. 73 dated 02.06.2023 for all DG sets having a capacity more than 800KW from dated 01.10.2023.

14. Industry shall comply with various Waste Management Rules as notified by MoEf&CC i.e. Plastic Waste Management Rules, 2016, Solid Waste Management Rules, 2016, Hazardous and Other Wastes (Management and Transboundary) Rules, 2016, E-waste (Management) Rules, 2016, Construction and Demolition Waste Management Rules, 2016.
15. Industry shall submit annual returns as per above mentioned rules. Also, Environmental Statement in prescribed form as per Rule 14 of Environment (Protection) Act, 1986.
16. This consent is valid only for products and quantity mentioned above. Industry shall obtain prior approval before making any modification in product/process/discharge/plant machinery failing which consent would be deemed void.
17. Industry shall make rain water harvesting on the premises as per map approved by concerned Authority. Pre-monsoon and Post- monsoon maintenance of rain water harvesting pit shall be done annually.
18. For green belt at least 8 feet height plants should be planted which shall be properly protected as proper irrigation and manoeuvring arrangements shall be made. Industry shall develop green belt in accordance with Government Order 07/55-02- 2018/09(writ)/2016 dated 26/02/2018 and UPPCB Office order issued vide letter no. H16405/220/2018/02 dated 16/02/2018 and letter no. H17259/ 183/55-2-2018/09(writ)/2016 dated 15.03.2018
19. Any additional air Polluting sources like D.G. Set, Boiler, Thermic Fluid Heater, etc shall not be installed without prior permission of the Board.
20. The industry shall submit an audited balance sheet/certificate of C.A. to this office for verification of the consent fee every year and accordingly balance fee shall be paid to UPPCB.
21. The operation of the industry should be in the way that the process emission generated from the industry should not affect the surrounding environment and population.
22. Industry shall provide sufficient safety equipment to the workers for their safety.
23. If U.P.P.C.B or C.P.C.B and CAQM issues a closure order against the industry, this consent shall remain suspended for the period till the closure order is revoked, after which the consent will be effective again for the remaining period.
24. This consent order will not affect the acceptance or order of any other department.
25. Knowingly making any false statement for obtaining consent or compliance with consent conditions shall result in the imposition of criminal penalties as provided under section 42(g) of the Water Act or section 38 (g) of the Air Act.
26. The applicant shall allow the staff of the Uttar Pradesh Pollution Control Board and/or their authorized representative, upon the representation of credentials:
a. To inspect raw material stock, manufacturing processes, reactors, premises etc to perform the functions of the Board.
b. To enter upon the applicant's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this consent.
c. To have access at reasonable times to any records required to be kept under the terms and conditions of this consent.
27. This consent is transferable, in case of a change of ownership/management, and the addresses of the new Owner/partner/directors/proprietor should immediately apply for the same.
28. The issuance of this consent does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any invasion of personal rights, nor any infringement of Central, State, or local laws or regulations.
29. This consent order is being issued with the intention that no pollution or land ownership dispute is pending and no such litigation is pending in any court, otherwise, the consent order will be deemed to be nullified.
30. Details of raw material (which is Hazardous waste) and product along with quantity shall be sent within a month.

31. You shall become a member of any common TSDF for S.L.F., and start sending the stored hazardous wastes for final disposal to the TSDF and report back to U.P.P.C.B. with the required manifesto (document of proof) within one or three months of this letter.
32. The unit shall ensure that Hazardous waste is regularly sent to Authorized Common TSDF and shall not store for more than 90 days in accordance with rule 8 of HOWM Rules, 2016.
33. In case of violation of the above-mentioned conditions, the consent order may be withdrawn.
34. This CTO is issued as per the provisions of the Air (Prevention and Control of Pollution) Act, 1981 (as amended) and the Water (Prevention and Control of Pollution) Act, 1974, and its amendment of 1978.

Notwithstanding anything contained in this consent order and these conditions of consent, the U.P. Pollution Control Board hereby reserves its right and power under The Air (Prevention and Control of Pollution) Act, 1981 and its amendment of 1987 and the Water (Prevention and Control of Pollution) Act, 1974 and its amendment of 1978 to review any and /or all the conditions imposed herein above and to make such verification as deemed fit for the purpose of the Act by this Board.

Deokumar Gupta
Digitally signed by Deokumar Gupta
Date: 2023.08.10 18:57:38 +05'30'

Regional Officer

Copy to:

Chief Environmental Officer, (Circle–1), U.P. Pollution Control Board, Lucknow

Deokumar Gupta
Digitally signed by Deokumar Gupta
Date: 2023.08.10 18:58:41 +05'30'

Regional Officer

मिशन LiFE - पर्यावरण के लिए जीवन शैली

(Lifestyle For Environment)

जनसहभागिता का सन्देश

- स्वच्छता – देशसेवा में अपने परिवेश की स्वच्छता हेतु अपना सक्रिय योगदान सुनिश्चित करें
- संकल्प लें -एकल उपयोग प्लास्टिक उत्पाद जैसे कप, तश्तरी, चम्मच, स्ट्रॉ, ईयरबड्स आदि का उपयोग न हो एवं पर्यावरण अनुकूल विकल्पों जैसे कागज/पत्तों से बने होने या कटलरी को प्राथमिकता दी जाय |
- एकल उपयोग प्लास्टिक उत्पाद के प्रयोग को रोकने एवं प्लास्टिक बैग के बजाय कपड़े के थैले का उपयोग करने मात्र से 375 मिलियन टन ठोस (प्लास्टिक) कचरे का उत्सर्जन बचाया जा सकता है
- चक्रीय अर्थव्यवस्था (सर्कुलर इकोनॉमी) का समुचित कार्यान्वयन वर्ष 2030 तक लगभग 14 लाख करोड़ रुपये की अतिरिक्त बचत उत्पन्न कर सकता है | वेस्ट /अपशिष्ट फेकने के पूर्व सोचें, ये किसी का संसाधन तो नहीं ...?
- अनुपयोगी इलेक्ट्रिक / इलेक्ट्रॉनिक उत्पाद को कचरे में फेकने से रुकें | इसके उपयुक्त निस्तारण हेतु इसे प्राधिकृत ई – वेस्ट रीसाइकलर को दें | प्राधिकृत ई-रीसाइक्लिंग इकाई में अनुपयोगी इलेक्ट्रिक / इलेक्ट्रॉनिक उत्पाद को देने मात्र से 0.75 मिलियन टन तक ई-कचरे का पुनर्चक्रण किया जा सकता है एवं ई-कचरे के विषम पर्यावरणीय दुष्प्रभाव से बचा जा सकता है
- बाहर जाते समय - सोचें कि क्या आपको वास्तव में परिवहन की आवश्यकता है - वह भी क्या व्यक्तिगत रूप से ? छोटी दूरी के लिए पैदल चलना पसंद करें, अथवा सम्भव हो तो कार पूल के रूप में संसाधन को साझा करें अथवा सार्वजनिक परिवहन पर विचार करें
- घरेलू स्तर पर कम से कम ठोस अपशिष्ट का उत्सर्जन करें और इनका प्रथाक्कीकरण करें
- उपयोगी शेष खाद्य सामग्री आपके स्वयं प्रयास अथवा निकटस्थ सक्रिय स्वयं सेवी संस्थाओं की सहायता से समाज के वंचित वर्ग तक पहुंचाई जा सकती है | वहीं अनुपयोगी भोजन /खाद्य सामग्री को कंपोस्ट (वर्मी कम्पोस्ट) करने से 15 अरब टन भोजन को नष्ट होने से बचाया जा सकता है
- ध्यान रखें - उपयुक्त नल और शावर के उपयोग से पानी की खपत को 30 - 40% तक कम किया जा सकता है। एवं उपयोग में न होने पर नलों को बंद रखने मात्र से 9 ट्रिलियन लीटर पानी बचाया जा सकता है
- ट्रैफिक लाइट/रेलवे क्रॉसिंग पर कार/स्कूटर के इंजन बंद करने मात्र से 22.5 बिलियन kWh तक ऊर्जा की बचत हो सकती है
- परम्परागत बल्ब के स्थान पर CFL का उपयोग बिजली की खपत में प्रभावी कमी लाते हैं | उपयोग में न होने पर बिजली उपकरणों को बंद करें | स्टार रेटेड विद्युत उपकरणों के उपयोग को प्राथमिकता दें

हमारे द्वारा अपनी जीवन शैली की प्राथमिकताओं का उचित और पर्यावरण अनुकूल पुनर्निर्धारण समाज और पर्यावरण के प्रति हमारा दायित्व है |

ITS TESTING LABORATORY (P) LTD.

Laboratory:A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P.)
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)
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contact@itslab.in, itlrclab@gmail.com
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TC-11181

TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ—060723-01 **Issue Date: 10/07/2023**

Issued To : **M/S. E-WAY FURNITURE SYSTEMS PRIVATE LIMITED**
PROPERTY NO.-33, INDUSTRIAL AREA, ECOTECH-12,
GREATER NOIDA, GAUTAM BUDDHA NAGAR,
UTTAR PRADES- 201306

Sample description	:	**Ambient Air**
Sample Drawn By	:	ITS Lab Representative
Date of Monitoring	:	05/07/2023
Sampling Plan &Procedure	:	SOP-AAQ/08
Analysis Duration	:	06/07/2023 To 10/07/2023
Sampling Location	:	Near Main Gate Area
Ambient Temperature (°C)	:	38
Sampling Duration	:	8 hrs.
Sampling Instrument Used	:	Respirable Dust Sampler, Fine Particulate (P.M 10 and PM 2.5) Sample
Weather Condition	:	Clear

RESULTS

S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.
1.	Particulate Matter (PM_{10})	IS:5182 Part-XXIII	92.7	µg /m^3	100.0
2.	Particulate Matter ($PM_{2.5}$)	CPCB Volume – 1	40.6	µg /m^3	60.0
3.	Sulphur Dioxide	IS:5182 Part-II	17.1	µg /m^3	80.0
4.	Nitrogen Dioxide	IS:5182 Part-VI	29.5	µg /m^3	80

*****End of the Report*****

Checked by

Authorized Signatory

Terms & Conditions :
1. Test reports are valid only for the samples tested in our laboratory. 2. Samples will destroyed as per quality policy.
3. Any complaints about the report should be communicated in writing within 7 days.
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TC-11181

TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ—060723-02 **Issue Date: 10/07/2023**

Issued To : M/S. E-WAY FURNITURE SYSTEMS PRIVATE LIMITED
PROPERTY NO.-33, INDUSTRIAL AREA, ECOTECH-12,
GREATER NOIDA, GAUTAM BUDDHA NAGAR,
UTTAR PRADES- 201306

Sample description	:	**Ambient Air**
Sample Drawn By	:	ITS Lab Representative
Date of Monitoring	:	05/07/2023
Sampling Plan &Procedure	:	SOP-AAQ/08
Analysis Duration	:	06/07/2023 To 10/07/2023
Sampling Location	:	Back Side Near DG Set Area
Ambient Temperature (°C)	:	38
Sampling Duration	:	8 hrs.
Sampling Instrument Used	:	Respirable Dust Sampler, Fine Particulate (P.M 10 and PM 2.5) Sample
Weather Condition	:	Clear

RESULTS

S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.
1.	Particulate Matter (PM_{10})	IS:5182 Part-XXIII	90.3	µg /m^3	100.0
2.	Particulate Matter ($PM_{2.5}$)	CPCB Volume – I	37.8	µg /m^3	60.0
3.	Sulphur Dioxide	IS:5182 Part-II	18.6	µg /m^3	80.0
4.	Nitrogen Dioxide	IS:5182 Part-VI	32.4	µg /m^3	80

End of the Report

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TC-11181

TEST REPORT

Ambient Air Quality Analysis

Report Code: AAQ—060723-03 **Issue Date: 10/07/2023**

Issued To : **M/S. E-WAY FURNITURE SYSTEMS PRIVATE LIMITED**
PROPERTY NO.-33, INDUSTRIAL AREA, ECOTECH-12,
GREATER NOIDA, GAUTAM BUDDHA NAGAR,
UTTAR PRADES- 201306

Sample description	:	**Ambient Air**
Sample Drawn By	:	ITS Lab Representative
Date of Monitoring	:	05/07/2023
Sampling Plan &Procedure	:	SOP-AAQ/08
Analysis Duration	:	06/07/2023 To 10/07/2023
Sampling Location	:	Near STP/ETP Plant Area
Ambient Temperature (°C)	:	38
Sampling Duration	:	8 hrs.
Sampling Instrument Used	:	Respirable Dust Sampler, Fine Particulate (P.M 10 and PM 2.5) Sample
Weather Condition	:	Clear

RESULTS

S. No.	Parameter	Test Method	Results	Units	Limits as per Environment (Protection) Act.
1.	Particulate Matter (PM_{10})	IS:5182 Part-XXIII	91.7	µg /m^3	100.0
2.	Particulate Matter ($PM_{2.5}$)	CPCB Volume – 1	39.5	µg /m^3	60.0
3.	Sulphur Dioxide	IS:5182 Part-II	16.3	µg /m^3	80.0
4.	Nitrogen Dioxide	IS:5182 Part-VI	26.1	µg /m^3	80

*****End of the Report*****

Checked by

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TC-11181

TEST REPORT

Noise Report

Report Code: N-060723-01 **Issue Date: 10/07/2023**

Issued To : M/S. E-WAY FURNITURE SYSTEMS PRIVATE LIMITED
PROPERTY NO.- 33, INDUSTRIAL AREA, ECOTECH-12,
GREATER NOIDA, GAUTAM BUDDHA NAGAR,
UTTAR PRADES- 201306

Date of Monitoring	:	**05/07/2023**
Date of Test starting	:	**06/07/2023**
Date of Test completed	:	**10/07/2023**
Sampling Done by	:	**ITS Lab Representative**
Sampling Method	:	**By Sound Level Meter**
Capacity	:	**250 KVA DG No.- 1**
Purpose of Monitoring	:	**Efficacy of Acoustic DG room**

RESULTS

S No.	Location	Unit	Test Method	Result	Requirement as Per EPA Act 1986
1	Noise Level When Canopy door is Open	dB(A)	CPCB Guidelines	102.8	-
2	Noise Level When Canopy door is Closed at a Distance of 1.0 meter	dB(A)	CPCB Guidelines	74.1	75 Max
3	Insertion Loss	dB(A)	CPCB Guidelines	28.7	25 Min.

Checked by **Authorized Signatory**

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TC-11181

TEST REPORT

Noise Report

Report Code: N-060723-02 **Issue Date: 10/07/2023**

Issued To : **M/S. E-WAY FURNITURE SYSTEMS PRIVATE LIMITED**
PROPERTY NO.- 33, INDUSTRIAL AREA, ECOTECH-12,
GREATER NOIDA, GAUTAM BUDDHA NAGAR,
UTTAR PRADES- 201306

Date of Monitoring	:	**05/07/2023**
Date of Test starting	:	**06/07/2023**
Date of Test completed	:	**10/07/2023**
Sampling Done by	:	**ITS Lab Representative**
Sampling Method	:	**By Sound Level Meter**
Capacity	:	**250 KVA DG No.- 2**
Purpose of Monitoring	:	**Efficacy of Acoustic DG room**

RESULTS

S No.	Location	Unit	Test Method	Result	Requirement as Per EPA Act 1986
1	Noise Level When Canopy door is Open	dB(A)	CPCB Guidelines	102.1	-
2	Noise Level When Canopy door is Closed at a Distance of 1.0 meter	dB(A)	CPCB Guidelines	73.5	75 Max
3	Insertion Loss	dB(A)	CPCB Guidelines	28.6	25 Min.

Checked by **Authorized Signatory**

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TC-11181

TEST REPORT

Noise Report

Report Code: N-060723-03 **Issue Date: 10/07/2023**

Issued To : M/S. E-WAY FURNITURE SYSTEMS PRIVATE LIMITED
PROPERTY NO.- 33, INDUSTRIAL AREA, ECOTECH-12,
GREATER NOIDA, GAUTAM BUDDHA NAGAR,
UTTAR PRADES- 201306

Date of Monitoring	:	**05/07/2023**
Date of Test starting	:	**06/07/2023**
Date of Test completed	:	**10/07/2023**
Sampling Done by	:	**ITS Lab Representative**
Sampling Method	:	**By Sound Level Meter**
Capacity	:	**125 KVA DG No.- 3**
Purpose of Monitoring	:	**Efficacy of Acoustic DG room**

RESULTS

S No.	Location	Unit	Test Method	Result	Requirement as Per EPA Act 1986
1	Noise Level When Canopy door is Open	dB(A)	CPCB Guidelines	100.7	-
2	Noise Level When Canopy door is Closed at a Distance of 1.0 meter	dB(A)	CPCB Guidelines	72.4	75 Max
3	Insertion Loss	dB(A)	CPCB Guidelines	28.3	25 Min.

Checked by

Authorized Signatory

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Laboratory:A-114, Sector-80, Phase-II, Noida, Gautam Budh Nagar - 201305, (U.P.)
An ISO 9001: 2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory)
Website: www.itslab.in, Email: itslaboratorypvtltd@gmail.com, info@itslab.in,
contact@itslab.in, itlrclab@gmail.com
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TC-11181

TEST REPORT

Stack Emission Analysis

Report Code: SE-060723-02 **Issue Date: 10/07/2023**

Issued To : **M/S. E-WAY FURNITURE SYSTEMS PRIVATE LIMITED PROPERTY NO.- 33, INDUSTRIAL AREA, ECOTECH-12, GREATER NOIDA, GAUTAM BUDDHA NAGAR, UTTAR PRADES- 201306**

Sample Description	:	**Stack Emission**
Sample Drawn On	:	**05/07/2023**
Sample Drawn By	:	**ITS Representative**
Sampling Time	:	**50 minutes**
Sampling Plan &Procedure	:	**SOP/SE/09**
Analysis Duration	:	**06/07/2023 To 10/07/2023**
Ambient Temperature(°C)	:	**38°C**
Stack Temperature (°C)	:	**129°C**
Source of Emission	:	**Stack Attached To D.G. No.- 1**
Capacity	:	**250KVA**
Type of Fuel used	:	**HSD**
Fuel Consumption	:	**30LTR/HR**
Operating Load	:	**Normal**
Dia of Stack (meter)	:	**0.200**
Height of Stack From Roof Level	:	**3.5 meter**
Average Velocity (m/sec)	:	**16.9**
Quantity of Emission (m^3/Hr)	:	**1536.7**

TEST RESULT

S.N.	Parameter	Test Method	Results	Units	Emission limits Upto 800 KW DG
1.	Particulate Matter (PM)	IS:11255(Part-1)	0.12	g/kw-hr	≤0.2
2.	NOx+ NMHC	IS:11255(Part-7)	1.16	g/kw-hr	≤4.0
3.	Carbon monoxide(as CO)	USEPA Method No.10	0.93	g/kw-hr	≤3.5

******End of the Report******

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TC-11181

TEST REPORT

Stack Emission Analysis

Report Code: SE-060723-03 **Issue Date: 10/07/2023**

Issued To : **M/S. E-WAY FURNITURE SYSTEMS PRIVATE LIMITED PROPERTY NO.- 33, INDUSTRIAL AREA, ECOTECH-12, GREATER NOIDA, GAUTAM BUDDHA NAGAR, UTTAR PRADES- 201306**

Sample Description	:	**Stack Emission**
Sample Drawn On	:	**05/07/2023**
Sample Drawn By	:	**ITS Representative**
Sampling Time	:	**51 minutes**
Sampling Plan &Procedure	:	**SOP/SE/09**
Analysis Duration	:	**06/07/2023 To 10/07/2023**
Ambient Temperature(°C)	:	**38^0C**
Stack Temperature (°C)	:	**131^0C**
Source of Emission	:	**Stack Attached To D.G. No.- 2**
Capacity	:	**250KVA**
Type of Fuel used	:	**HSD**
Fuel Consumption	:	**30LTR/HR**
Operating Load	:	**Normal**
Dia of Stack (meter)	:	**0.200**
Height of Stack From Roof Level	:	**3.5 meter**
Average Velocity (m/sec)	:	**17.1**
Quantity of Emission (m^3/Hr)	:	**1541.5**

TEST RESULT

S.N.	Parameter	Test Method	Results	Units	Emission limits Upto 800 KW DG
1.	Particulate Matter (PM)	IS:11255(Part-1)	0.125	g/kw-hr	≤0.2
2.	NOx+ NMHC	IS:11255(Part-7)	1.29	g/kw-hr	≤4.0
3.	Carbon monoxide(as CO)	USEPA Method No.10	0.98	g/kw-hr	≤3.5

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TC-11181

TEST REPORT

Stack Emission Analysis

Report Code: SE-060723-04 **Issue Date: 10/07/2023**

Issued To : **M/S. E-WAY FURNITURE SYSTEMS PRIVATE LIMITED PROPERTY NO.- 33, INDUSTRIAL AREA, ECOTECH-12, GREATER NOIDA, GAUTAM BUDDHA NAGAR, UTTAR PRADES- 201306**

Sample Description	:	**Stack Emission**
Sample Drawn On	:	**05/07/2023**
Sample Drawn By	:	**ITS Representative**
Sampling Time	:	**55 minutes**
Sampling Plan &Procedure	:	**SOP/SE/09**
Analysis Duration	:	**06/07/2023 To 10/07/2023**
Ambient Temperature(°C)	:	**38°C**
Stack Temperature (°C)	:	**114°C**
Source of Emission	:	**Stack Attached To D.G. No.- 3**
Capacity	:	**125KVA**
Type of Fuel used	:	**HSD**
Fuel Consumption	:	**15LTR/HR**
Operating Load	:	**Normal**
Dia of Stack (meter)	:	**0.200**
Height of Stack From Roof Level	:	**3.5 meter**
Average Velocity (m/sec)	:	**15.8**
Quantity of Emission (m^3/Hr)	:	**1129.3**

TEST RESULT

S.N.	Parameter	Test Method	Results	Units	Emission limits Upto 800 KW DG
1.	Particulate Matter (PM)	IS:11255(Part-1)	0.118	g/kw-hr	≤0.2
2.	NOx+ NMHC	IS:11255(Part-7)	1.17	g/kw-hr	≤4.0
3.	Carbon monoxide(as CO)	USEPA Method No.10	0.95	g/kw-hr	≤3.5

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TC-11181

TEST REPORT

Stack Emission Analysis

Report Code: SE-060723-05 **Issue Date: 10/07/2023**

Issued To : **M/S. E-WAY FURNITURE SYSTEMS PRIVATE LIMITED PROPERTY NO.- 33, INDUSTRIAL AREA, ECOTECH-12, GREATER NOIDA, GAUTAM BUDDHA NAGAR, UTTAR PRADES- 201306**

Sample description	:	Stack Emission
Sample Drawn By	:	ITS Representative
Sample Drawn On	:	06/07/2023
Sampling Time	:	55 minutes
Sampling Plan &Procedure	:	SOP/SE/09
Analysis Duration	:	06/07/2023 To 10/07/2023
Ambient Temperature(°C)	:	38
Stack Temperature (°C)	:	42
Source of Emission	:	Stack Attached To Powder Coating Stack
Capacity	:	-
Type of Fuel used	:	PNG
Fuel Consumption	:	-
Operating Load	:	Normal
Type of Stack	:	MS
Diameter of Stack(meter)	:	0.3 x 0.3
Height of Stack from Ground Level	:	12 Meter
Average Velocity of Flue Emission (m/s)	:	6.4
Flow Rate of SPM (LPM)	:	17
Flow Rate of Gases (LPM)	:	2.1
Quantity of Emission (m^3/Hr)	:	218.7
Attached APCH	:	Single Cyclone

S.N.	Parameter	Test Method	Results	Units	Emission limits As per CPCB
1.	Particulate Matter	IS:11255(Part-1)	12.9	mg/Nm^3	150
2.	Oxide of Nitrogen	IS:11255(Part-7)	BDL	mg/Nm^3	-
3.	Sulphur dioxide	IS:11255(Part-2)	BDL	mg/Nm^3	-
4.	Carbon monoxide	IS: 13270	0.004	%	1

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TC-11181

TEST REPORT

ETP Outlet Water Sample Analysis

Report Code: WW-060723-01 **Issue Date: 10/07/2023**

Issued TO : **M/S. E-WAY FURNITURE SYSTEMS PRIVATE LIMITED**
PROPERTY NO.-33, INDUSTRIAL AREA, ECOTECH-12,
GREATER NOIDA, GAUTAM BUDDHA NAGAR,
UTTAR PRADES- 201306

Sample Description	:	**ETP Outlet Water**
Sample Drawn On	:	**05/07/2023**
Sample Drawn By	:	**Party**
Sample Received On	:	**06/07/2023**
Sample Quantity	:	**2.0 Liter**
Environment Conditions	:	**Normal**
Analysis Duration	:	**06/07/2023 To 10/07/2023**

REPORTS

S. No.	Parameter	Test Method	Results	Units	Limits
1.	pH	IS:3025(Part-11)	7.79	-	5.5-9.0
2.	Total Suspended Solids	IS:3025(Part-17)	59	mg/l	100.0
3.	Chemical Oxygen Demand (as O_2)	IS:3025(Part-58)	124	mg/l	250.0
4.	Biochemical Oxygen Demand (at 27°C for 3 days)	IS:3025(Part-44)	21	mg/l	30.0
5.	Oil & Grease	IS:3025(Part-39)	<1.0	mg/l	10.0

-: End of the Report:-

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TEST REPORT

STP Outlet Water Sample Analysis

Report Code: WW-060723-02 **Issue Date: 10/07/2023**

Issued TO : **M/S. E-WAY FURNITURE SYSTEMS PRIVATE LIMITED**
PROPERTY NO.-33, INDUSTRIAL AREA, ECOTECH-12,
GREATER NOIDA, GAUTAM BUDDHA NAGAR,
UTTAR PRADES- 201306

Sample Description	:	**STP Outlet Water**
Sample Drawn On	:	**05/07/2023**
Sample Drawn By	:	**Party**
Sample Received On	:	**06/07/2023**
Sample Quantity	:	**2.0 Liter**
Environment Conditions	:	**Normal**
Analysis Duration	:	**06/07/2023 To 10/07/2023**

REPORTS

S. No.	Parameter	Test Method	Results	Units	Limits
1.	pH	IS:3025(Part-11)	7.34	-	5.5-9.0
2.	Total Suspended Solids	IS:3025(Part-17)	46	mg/l	100.0
3.	Chemical Oxygen Demand (as O_2)	IS:3025(Part-58)	128	mg/l	250.0
4.	Biochemical Oxygen Demand (at 27°C for 3 days)	IS:3025(Part-44)	22	mg/l	30.0
5.	Oil & Grease	IS:3025(Part-39)	<1.0	mg/l	10.0

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TC-11181

TEST REPORT

Water Sample Analysis

Report Code: W-060723-04 **Issue Date: 10/07/2023**

Issued To : **M/S. E-WAY FURNITURE SYSTEMS PRIVATE LIMITED**
PROPERTY NO.- 33, INDUSTRIAL AREA, ECOTECH-12,
GREATER NOIDA, GAUTAM BUDDHA NAGAR,
UTTAR PRADES- 201306

Sample Description	:	**Drinking Water**
Sample Drawn On	:	05/07/2023
Sample Drawn By	:	Mr. Amit Sharma (ITS)
Sample Received On	:	06/07/2023
Sample Quantity	:	1.0 Lt. Pet Bottle for Chemical & 500ml for microbiological in sterilized Glass bottle. Glass Bottle
Environment Conditions	:	Temp.- 25±2°C & Humidity- 50±10%
Analysis Duration	:	06/07/2023 To 10/07/2023
Test Specification to be used	:	IS: 10500: 2012 RA-2018
Remarks (if any)		

RESULTS
Water Test as per IS:10500:2018

S. No.	Parameter	Test Method	Results	Units	Acceptable Limit	Permissible Limit
1.	pH	IS:3025 (Part-11)	7.19	-	6.5 – 8.5	-
2.	Colour	IS:3025 (Part-4)	<5.0	Hazen	5	15
3.	Taste	IS:3025 (Part-8)	Agreeable	-	-	-
4.	Turbidity	IS:3025 (Part-10)	<1.0	NTU	1	5
5.	Total Hardness (as CaCO3)	IS:3025 (Part-21)	50	mg/l	200	600
6.	Chloride (as Cl)	IS:3025 (Part-32)	11.7	mg/l	250	1000
7.	Residual Free Chlorine	IS:3025 (Part-26)	<0.1	mg/l	0.2 Max	-
8.	Iron (as Fe)	IS:3025 (Part-52)	<0.05	mg/l	1.0	-
9.	Fluoride (as F)	IS:3025 (Part-60)	<0.1	mg/l	1	1.5
10.	Total Dissolved Solid	IS:3025 (Part-16)	82	mg/l	500	2000
11.	Calcium (as Ca)	IS: 3025 (P- 40)	12	mg/l	75	200
12.	Magnesium (as Mg)	IS: 3025 (P-46)	4.8	mg/l	30	100

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13.	Odour	IS:3025 (Part-5)	Agreeable	-	-	-
14.	Total Coli form	IS:1622	Absent	MPN/ 100ml	Absent	10 max
15.	E. Coli	IS: 1622	Absent	MPN/ 100ml	Absent	Absent

Remarks – Based on above tested parameter, water sample meet as per IS-10500-2018 in Acceptable limit and water is fit for drinking purpose.

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TEST REPORT

Indoor Air Quality Analysis

Report Code: AAQ-100124-13 **Issue Date: 13/01/2024**

Issued To: **M/S. AFC SYSTEM PVT. LTD.**
Plot No. – 33, Ecotech – 12, Greater Noida West, Gautam Buddha Nagar, (U.P.), India

SAMPLING & ANALYSIS DATA

Sample Description	:	Work Zone Air
Date of Sample Drawn	:	09/01/20204
Sample Drawn By	:	Mr. Amit Sharma (ITS)
Sampling Location	:	**Wood Cutting Area**
Sampling Plan &Procedure	:	IS:5182 & CPCB Guidelines
Sampling Instrument Used	:	Handy Sampler & Air Sampler
Date of Sample Received	:	10/01/20204
Analysis Duration	:	10/01/20204 To 13/01/2024

TEST RESULT

Particulate Matter Test :-

S. No.	Parameter	Test Method	Unit	Results	Requirements/ Limit ASHRAE (Max)
1.	Particulate Matter (PM10)	IS:5182 Part-XXIII	$\mu g/m^3$	76.2	150
2.	Particulate Matter (PM2.5)	Gravimetric	$\mu g/m^3$	46.0	35.0

Volatile Organic Compound Test :-

S. No.	Parameter	Test Method	Unit	Results	TVOC Limit as per OSHA (Max)
1.	Benzene	IS:5182 Part-XI	ppm	<0.1	
2.	Benzo(α) Pyrine	IS:5182 Part-XI	ppm	<0.1	
3.	Hexane	NIOSH 1501	ppm	<0.1	
4.	Formaldehyde	NIOSH 1501	ppm	<0.1	
5.	Mercaptan	NIOSH 1501	ppm	<0.1	
6.	Xylene	NIOSH 1501	ppm	<0.1	
7.	Toluene	NIOSH 1501	ppm	<0.1	
8.	Acetaldehyde	NIOSH 1501	ppm	<0.1	
9.	Total Volatile Organic Compound (as TVOC)	NIOSH 1501	ppm	<0.1	3.0 ppm

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Hazardous Air Pollutants Test :-

S. No.	Parameter	Test Method	Unit	Results	Requirements/ Limit ASHRAE (Max)
1.	Sulphur dioxide (as SO_2)	IS:5182(P-II)	$\mu g/m^3$	12.6	80
2.	Nitrogen dioxide (as NO_2)	IS:5182(P-VI)	$\mu g/m^3$	28.8	100
3.	Carbon monoxide (as CO)	IS:5182 (P-X)	ppm	2.10	9.0
4.	Ozone (as O3)	IS:5182 (Part-IX)	$\mu g/m^3$	11.9	100
5.	Ammonia (as NH_3)	IS:5182 Part-XXV	$\mu g/m^3$	<10	25 (as per NIOSH)
6.	Asbestos	IS:2096:1992	Count	Nil	Not Specified
7.	Carbon dioxide (as CO_2)	GC- FID With Catalyst converter	ppm	1178	1000
8.	Methane (as CH_4)	GC Method	ppm	N.D.	Not Specified
9.	Hydrogen Peroxide (as H_2O_2)	OSHA 1019	ppm	<0.5	1.0 (as per OSHA)

NIOSH- National Institute for Occupational Safety & Health.
OSHA- Occupational Safety & Health Administration.

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TEST REPORT

Indoor Air Quality Analysis

Report Code: AAQ-100124-14 **Issue Date: 13/01/2024**

Issued To: **M/S. AFC SYSTEM PVT. LTD.**
Plot No. – 33, Ecotech – 12, Greater Noida West, Gautam Buddha Nagar, (U.P.), India

SAMPLING & ANALYSIS DATA

Sample Description	:	Work Zone Air
Date of Sample Drawn	:	09/01/20204
Sample Drawn By	:	Mr. Amit Sharma (ITS)
Sampling Location	:	**Powder Coating Area**
Sampling Plan &Procedure	:	IS:5182 & CPCB Guidelines
Sampling Instrument Used	:	Handy Sampler & Air Sampler
Date of Sample Received	:	10/01/20204
Analysis Duration	:	10/01/20204 To 13/01/2024

TEST RESULT

Particulate Matter Test :-

S. No.	Parameter	Test Method	Unit	Results	Requirements/ Limit ASHRAE (Max)
1.	Particulate Matter (PM10)	IS:5182 Part-XXIII	$\mu g/m^3$	71.8	150
2.	Particulate Matter (PM2.5)	Gravimetric	$\mu g/m^3$	42.5	35.0

Volatile Organic Compound Test :-

S. No.	Parameter	Test Method	Unit	Results	TVOC Limit as per OSHA (Max)
1.	Benzene	IS:5182 Part-XI	ppm	<0.1	
2.	Benzo(α) Pyrine	IS:5182 Part-XI	ppm	<0.1	
3.	Hexane	NIOSH 1501	ppm	<0.1	
4.	Formaldehyde	NIOSH 1501	ppm	<0.1	
5.	Mercaptan	NIOSH 1501	ppm	<0.1	
6.	Xylene	NIOSH 1501	ppm	<0.1	
7.	Toluene	NIOSH 1501	ppm	<0.1	
8.	Acetaldehyde	NIOSH 1501	ppm	<0.1	
9.	Total Volatile Organic Compound (as TVOC)	NIOSH 1501	ppm	<0.1	3.0 ppm

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Hazardous Air Pollutants Test :-

S. No.	Parameter	Test Method	Unit	Results	Requirements/ Limit ASHRAE (Max)
1.	Sulphur dioxide (as SO_2)	IS:5182(P-II)	ppm	10.9	80
2.	Nitrogen dioxide (as NO_2)	IS:5182(P-VI)	ppm	25.2	100
3.	Carbon monoxide (as CO)	IS:5182 (P-X)	ppm	2.19	9.0
4.	Ozone (as O3)	IS:5182 (Part-IX)	$\mu g/m^3$	10.2	100
5.	Ammonia (as NH_3)	IS:5182 Part-XXV	$\mu g/m^3$	<10	25 (as per NIOSH)
6.	Asbestos	IS:2096:1992	Count	Nil	Not Specified
7.	Carbon dioxide (as CO_2)	NIOSH	ppm	1085	1000
8.	Methane (as CH_4)	GC Method	ppm	N.D.	Not Specified
9.	Hydrogen Peroxide (as H_2O_2)	OSHA 1019	ppm	<0.5	1.0 (as per OSHA)

NIOSH- National Institute for Occupational Safety & Health.
OSHA- Occupational Safety & Health Administration.

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TEST REPORT

Indoor Air Quality Analysis

Report Code: AAQ-100124-15 **Issue Date: 13/01/2024**

Issued To: **M/S. AFC SYSTEM PVT. LTD.**
Plot No. – 33, Ecotech – 12, Greater Noida West, Gautam Buddha Nagar, (U.P.), India

SAMPLING & ANALYSIS DATA

Sample Description	:	Work Zone Air
Date of Sample Drawn	:	09/01/20204
Sample Drawn By	:	Mr. Amit Sharma (ITS)
Sampling Location	:	**Welding Area**
Sampling Plan &Procedure	:	IS:5182 & CPCB Guidelines
Sampling Instrument Used	:	Handy Sampler & Air Sampler
Date of Sample Received	:	10/01/20204
Analysis Duration	:	10/01/20204 To 13/01/2024

TEST RESULT

Particulate Matter Test :-

S. No.	Parameter	Test Method	Unit	Results	Requirements/ Limit ASHRAE (Max)
1.	Particulate Matter (PM10)	IS:5182 Part-XXIII	$\mu g/m^3$	78.5	150
2.	Particulate Matter (PM2.5)	Gravimetric	$\mu g/m^3$	48.1	35.0

Volatile Organic Compound Test :-

S. No.	Parameter	Test Method	Unit	Results	TVOC Limit as per OSHA (Max)
1.	Benzene	IS:5182 Part-XI	ppm	<0.1	
2.	Benzo(α) Pyrine	IS:5182 Part-XI	ppm	<0.1	
3.	Hexane	NIOSH 1501	ppm	<0.1	
4.	Formaldehyde	NIOSH 1501	ppm	<0.1	
5.	Mercaptan	NIOSH 1501	ppm	<0.1	
6.	Xylene	NIOSH 1501	ppm	<0.1	
7.	Toluene	NIOSH 1501	ppm	<0.1	
8.	Acetaldehyde	NIOSH 1501	ppm	<0.1	
9.	Total Volatile Organic Compound (as TVOC)	NIOSH 1501	ppm	<0.1	3.0 ppm

Checked by **Authorized Signatory**

Hazardous Air Pollutants Test :-

S. No.	Parameter	Test Method	Unit	Results	Requirements/ Limit ASHRAE (Max)
1.	Sulphur dioxide (as SO_2)	IS:5182(P-II)	ppm	13.1	80
2.	Nitrogen dioxide (as NO_2)	IS:5182(P-VI)	ppm	30.5	100
3.	Carbon monoxide (as CO)	IS:5182 (P-X)	ppm	2.39	9.0
4.	Ozone (as O3)	IS:5182 (Part-IX)	$\mu g/m^3$	12.5	100
5.	Ammonia (as NH_3)	IS:5182 Part-XXV	$\mu g/m^3$	<10	25 (as per NIOSH)
6.	Asbestos	IS:2096:1992	Count	Nil	Not Specified
7.	Carbon dioxide (as CO_2)	NIOSH	ppm	1318	1000
8.	Methane (as CH_4)	GC Method	ppm	N.D.	Not Specified
9.	Hydrogen Peroxide (as H_2O_2)	OSHA 1019	ppm	<0.5	1.0 (as per OSHA)

NIOSH- National Institute for Occupational Safety & Health.
OSHA- Occupational Safety & Health Administration.

CHECKED BY **AUTHORIZED SIGNATORY**

TEST REPORT

Indoor Air Quality Analysis

Report Code: AAQ-100124-16 **Issue Date: 13/01/2024**

Issued To: **M/S. AFC SYSTEM PVT. LTD.**
Plot No. – 33, Ecotech – 12, Greater Noida West, Gautam Buddha Nagar, (U.P.), India

SAMPLING & ANALYSIS DATA

Sample Description	:	Work Zone Air
Date of Sample Drawn	:	09/01/20204
Sample Drawn By	:	Mr. Amit Sharma (ITS)
Sampling Location	:	**Paint Shop Area**
Sampling Plan &Procedure	:	IS:5182 & CPCB Guidelines
Sampling Instrument Used	:	Handy Sampler & Air Sampler
Date of Sample Received	:	10/01/20204
Analysis Duration	:	10/01/20204 To 13/01/2024

TEST RESULT

Particulate Matter Test :-

S. No.	Parameter	Test Method	Unit	Results	Requirements/ Limit ASHRAE (Max)
1.	Particulate Matter (PM10)	IS:5182 Part-XXIII	$\mu g/m^3$	70.0	150
2.	Particulate Matter (PM2.5)	Gravimetric	$\mu g/m^3$	41.2	35.0

Volatile Organic Compound Test :-

S. No.	Parameter	Test Method	Unit	Results	TVOC Limit as per OSHA (Max)
1.	Benzene	IS:5182 Part-XI	ppm	<0.1	
2.	Benzo(α) Pyrine	IS:5182 Part-XI	ppm	<0.1	
3.	Hexane	NIOSH 1501	ppm	<0.1	
4.	Formaldehyde	NIOSH 1501	ppm	<0.1	
5.	Mercaptan	NIOSH 1501	ppm	<0.1	
6.	Xylene	NIOSH 1501	ppm	<0.1	
7.	Toluene	NIOSH 1501	ppm	<0.1	
8.	Acetaldehyde	NIOSH 1501	ppm	<0.1	
9.	Total Volatile Organic Compound (as TVOC)	NIOSH 1501	ppm	<0.1	3.0 ppm

Checked by **Authorized Signatory**

Hazardous Air Pollutants Test :-

S. No.	Parameter	Test Method	Unit	Results	Requirements/ Limit ASHRAE (Max)
1.	Sulphur dioxide (as SO_2)	IS:5182(P-II)	ppm	10.2	80
2.	Nitrogen dioxide (as NO_2)	IS:5182(P-VI)	ppm	23.8	100
3.	Carbon monoxide (as CO)	IS:5182 (P-X)	ppm	1.90	9.0
4.	Ozone (as O3)	IS:5182 (Part-IX)	$\mu g/m^3$	9.8	100
5.	Ammonia (as NH_3)	IS:5182 Part-XXV	$\mu g/m^3$	<10	25 (as per NIOSH)
6.	Asbestos	IS:2096:1992	Count	Nil	Not Specified
7.	Carbon dioxide (as CO_2)	NIOSH	ppm	1059	1000
8.	Methane (as CH_4)	GC Method	ppm	N.D.	Not Specified
9.	Hydrogen Peroxide (as H_2O_2)	OSHA 1019	ppm	<0.5	1.0 (as per OSHA)

NIOSH- National Institute for Occupational Safety & Health.
OSHA- Occupational Safety & Health Administration.

CHECKED BY **AUTHORIZED SIGNATORY**

TEST REPORT

Indoor Air Quality Analysis

Report Code: AAQ-100124-17 **Issue Date: 13/01/2024**

Issued To: **M/S. AFC SYSTEM PVT. LTD.**
Plot No. – 33, Ecotech – 12, Greater Noida West, Gautam Buddha Nagar, (U.P.), India

SAMPLING & ANALYSIS DATA

Sample Description	:	Work Zone Air
Date of Sample Drawn	:	09/01/20204
Sample Drawn By	:	Mr. Amit Sharma (ITS)
Sampling Location	:	**Laser Cutting Area**
Sampling Plan &Procedure	:	IS:5182 & CPCB Guidelines
Sampling Instrument Used	:	Handy Sampler & Air Sampler
Date of Sample Received	:	10/01/20204
Analysis Duration	:	10/01/20204 To 13/01/2024

TEST RESULT

Particulate Matter Test :-

S. No.	Parameter	Test Method	Unit	Results	Requirements/ Limit ASHRAE (Max)
1.	Particulate Matter (PM10)	IS:5182 Part-XXIII	$\mu g/m^3$	73.3	150
2.	Particulate Matter (PM2.5)	Gravimetric	$\mu g/m^3$	44.9	35.0

Volatile Organic Compound Test :-

S. No.	Parameter	Test Method	Unit	Results	TVOC Limit as per OSHA (Max)
1.	Benzene	IS:5182 Part-XI	ppm	<0.1	
2.	Benzo(α) Pyrine	IS:5182 Part-XI	ppm	<0.1	
3.	Hexane	NIOSH 1501	ppm	<0.1	
4.	Formaldehyde	NIOSH 1501	ppm	<0.1	
5.	Mercaptan	NIOSH 1501	ppm	<0.1	
6.	Xylene	NIOSH 1501	ppm	<0.1	
7.	Toluene	NIOSH 1501	ppm	<0.1	
8.	Acetaldehyde	NIOSH 1501	ppm	<0.1	
9.	Total Volatile Organic Compound (as TVOC)	NIOSH 1501	ppm	<0.1	3.0 ppm

Checked by **Authorized Signatory**

TEST REPORT

Indoor Air Quality Analysis

Report Code: AAQ-100124-18 **Issue Date: 13/01/2024**

Issued To: **M/S. AFC SYSTEM PVT. LTD.**
Plot No. – 33, Ecotech – 12, Greater Noida West, Gautam Buddha Nagar, (U.P.), India

SAMPLING & ANALYSIS DATA

Sample Description	:	Work Zone Air
Date of Sample Drawn	:	09/01/20204
Sample Drawn By	:	Mr. Amit Sharma (ITS)
Sampling Location	:	**Wood Cleaning Area**
Sampling Plan &Procedure	:	IS:5182 & CPCB Guidelines
Sampling Instrument Used	:	Handy Sampler & Air Sampler
Date of Sample Received	:	10/01/20204
Analysis Duration	:	10/01/20204 To 13/01/2024

TEST RESULT

Particulate Matter Test :-

S. No.	Parameter	Test Method	Unit	Results	Requirements/ Limit ASHRAE (Max)
1.	Particulate Matter (PM10)	IS:5182 Part-XXIII	$\mu g/m^3$	75.7	150
2.	Particulate Matter (PM2.5)	Gravimetric	$\mu g/m^3$	47.3	35.0

Volatile Organic Compound Test :-

S. No.	Parameter	Test Method	Unit	Results	TVOC Limit as per OSHA (Max)
1.	Benzene	IS:5182 Part-XI	ppm	<0.1	
2.	Benzo(α) Pyrine	IS:5182 Part-XI	ppm	<0.1	
3.	Hexane	NIOSH 1501	ppm	<0.1	
4.	Formaldehyde	NIOSH 1501	ppm	<0.1	
5.	Mercaptan	NIOSH 1501	ppm	<0.1	
6.	Xylene	NIOSH 1501	ppm	<0.1	
7.	Toluene	NIOSH 1501	ppm	<0.1	
8.	Acetaldehyde	NIOSH 1501	ppm	<0.1	
9.	Total Volatile Organic Compound (as TVOC)	NIOSH 1501	ppm	<0.1	3.0 ppm

Checked by **Authorized Signatory**

Hazardous Air Pollutants Test :-

S. No.	Parameter	Test Method	Unit	Results	Requirements/ Limit ASHRAE (Max)
1.	Sulphur dioxide (as SO_2)	IS:5182(P-II)	ppm	12.9	80
2.	Nitrogen dioxide (as NO_2)	IS:5182(P-VI)	ppm	29.6	100
3.	Carbon monoxide (as CO)	IS:5182 (P-X)	ppm	2.15	9.0
4.	Ozone (as O3)	IS:5182 (Part-IX)	$\mu g/m^3$	12.3	100
5.	Ammonia (as NH_3)	IS:5182 Part-XXV	$\mu g/m^3$	<10	25 (as per NIOSH)
6.	Asbestos	IS:2096:1992	Count	Nil	Not Specified
7.	Carbon dioxide (as CO_2)	NIOSH	ppm	1192	1000
8.	Methane (as CH_4)	GC Method	ppm	N.D.	Not Specified
9.	Hydrogen Peroxide (as H_2O_2)	OSHA 1019	ppm	<0.5	1.0 (as per OSHA)

NIOSH- National Institute for Occupational Safety & Health.
OSHA- Occupational Safety & Health Administration.

CHECKED BY **AUTHORIZED SIGNATORY**

FORM 10
[See rule 19 (1)]

S. No. HW 4706

MANIFEST FOR HAZARDOUS AND OTHER WASTE

Copy 1 (White) — To Be Forwarded By The Sender To The State Pollution Control Board After Signing All The Seven Copies.

1	Sender's Name and Mailing Address (including Phone No. and E-mail) :	E-Way Furniture System Pvt. Ltd. Plot-No-33, Ecotech-12, Gr Noida
2	Sender's Authorisation No. :	
3	Manifest Document No. :	4706 06/01/2024
4	Transporter's Name and Address (including Phone No. and E-mail) :	S.W.M.P
5	Type of Vehicle :	(Truck/Tanker/Special Vehicle)
6	Transporter's Registration No. :	
7	Vehicle Registration No. :	UP-14 FT-2770
8	Receiver's Name and Mailing Address (including Phone No. and E-mail) :	SHEETALA WASTE MANAGEMENT PROJECT D-26 & 37, UPSIDC Industrial Area, Tehsil-Sikandrabad Dist. Bulandshahr, Uttar Pradesh - 203206 Mob. : 9643764441 | E-mail : swmp@sheetalawaste.com
9	Receiver's Authorisation No. :	1344/UPPCB/Bulandshahar(UPPCBRO) HWM/ BULAND SHAHAR/2020 | Dated : 08/01/2021 183555/UPPCB/Bulandshahar(UPPCBRO) CTO/both/BULANDSHAHAR/2023 | Date : 20/05/2023
10	Waste Description :	Chemical Sludge 35.3
11	Total Quantity No. of Containers :	60 KG ..... m^3 or MT ..... Nos.
12	Physical Form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13	Special Handling Instructions and Additional Information :	In case of leakage/spillage, use washing soap at the point of leakage to prevent it. All material should be properly packed in spillage proof containers. Do not throw any material from vehicle
14	Sender's Certificate	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and led, and are in all respects in proper conditions for transport by road according to applicable national government regulations.
	Name and Stamp: Signature :	Day 06 Month 01 Year 2024
15	Transporter Acknowledgement of Receipt of Wastes	
	Name and Stamp: Signature :	Sheetala Waste Management Project D-26 & 37, UPSIDC Industrial Area, Sikandrabad, Bulandshahr (U.P.) 203206 GSTIN-09ADSFS7354L1Z2 Day 06 Month 01 Year 2024
16	Receiver's certification for receipt of hazardous and other waste	
	Name and Stamp: Signature :	Day Month Year

Monthly

SHEETALA WASTE MANAGEMENT PROJECT

SHEETALA WASTE MANAGEMENT PROJECT (SWMP)

An ISO 9001:2015 & 14001:2015 Certified Company

www.sheetalawaste.com

MEMBERSHIP CERTIFICATE

This is to certify that

E WAY FURNITURE SYSTEMS PVT. LTD.

Plot No.33, Ecotech-12,

Greater Noida, U.P. - 201310

is a registered member of our CHW-TSDF at
D-26, UPSIDC Industrial Area, Sikandrabad, Bulandshahr, Uttar Pradesh
For Safe, Legal & Scientific Disposal of Hazardous Waste

Membership No.: **SWMP/SKD/0193/22**

Validity: **19 August, 2022 To 18 August, 2027**

To verify validity of membership, call
Sheetala Waste Management Project at
Phone: 0120-2867001/002, +91-9643764441
Email – sales@sheetalawaste.com

For Sheetala Waste Management Project
Managing Director

Note: Membership is subjected to the Terms & Conditions of agreement and may be terminated by SWMP, upon non-payment of dues / service charges

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

CERTIFICATE

The Certification Body
of TÜV SÜD South Asia Private Limited

certifies that

AFC SYSTEM PVT. LTD.
33, ECOTECH -12 GREATER NOIDA (U.P)
GREATER NOIDA West – 201 310, India

has implemented Quality Management System

in accordance with **ISO 9001:2015**

for the scope of

Design, Manufacturing, Supply and Installation of Metal and Wooden Modular Furniture

The certificate is valid from **2023-10-30** until **2026-10-29**
Subject to successful completion of annual periodic audits
The present status of this certificate can be obtained through TUV SUD website by scanning below QR code and by entering the certificate number (without spaces) on web page. Further clarifications regarding the status & scope of this certificate may be obtained by consulting the certification body at Info.in@tuvsud.com

Certificate Registration No. **99 100 23542**

Date of Initial certification: **2023-10-30**

Issue Date: **2023-10-30 Rev. 00**

Rahul Kale
Head of Certification Body
of TÜV SÜD South Asia Private Limited,
Mumbai
Member of TÜV SÜD Group

NABCB QM011

TÜV SÜD South Asia Pvt. Ltd. ● TÜV SÜD House ● Saki Naka ● Andheri (East) ● Mumbai – 400072 ● Maharashtra ● India

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

CERTIFICATE

The Certification Body
of TÜV SÜD South Asia Private Limited
certifies that

AFC SYSTEM PVT. LTD.
33, ECOTECH -12 GREATER NOIDA (U.P)
GREATER NOIDA West – 201 310, India

has implemented Environmental Management System
in accordance with **ISO 14001:2015**
for the scope of

Design, Manufacturing, Supply and Installation of Metal and Wooden Modular Furniture

The certificate is valid from **2023-09-26** until **2026-09-25**
Subject to successful completion of annual periodic audits
The present status of this certificate can be obtained through TUV SUD website by scanning below QR code and by entering the certificate number (without spaces) on web page. Further clarifications regarding the status & scope of this certificate may be obtained by consulting the certification body at info.in@tuvsud.com

Certificate Registration No. **99 104 01646**
Date of Initial certification: **2023-09-26**
Issue Date: **2023-09-26** Rev. **00**

Rahul Kale
Head of Certification Body
of TÜV SÜD South Asia Private Limited,
Mumbai
Member of TÜV SÜD Group

TÜV SÜD South Asia Pvt. Ltd. ● TÜV SÜD House ● Saki Naka ● Andheri (East) ● Mumbai – 400072 ● Maharashtra ● India

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

CERTIFICATE

The Certification Body
of TÜV SÜD South Asia Private Limited

certifies that

AFC SYSTEM PVT. LTD.
33, ECOTECH -12 GREATER NOIDA (U.P)
GREATER NOIDA West – 201 310, India

has implemented Occupational Health and Safety Management System

in accordance with **ISO 45001:2018**

for the scope of

Design, Manufacturing, Supply and Installation of Metal and Wooden Modular Furniture

The certificate is valid from **2023-09-26** until **2026-09-25**
Subject to successful completion of annual periodic audits
The present status of this certificate can be obtained through TUV SUD website by scanning below QR code and by entering the certificate number (without spaces) on web page. Further clarifications regarding the status & scope of this certificate may be obtained by consulting the certification body at info.in@tuvsud.com

Certificate Registration No. **99 117 01104**

Date of Initial certification: **2023-09-26**

Issue Date: **2023-09-26** Rev. **00**

Rahul Kale
Head of Certification Body
of TÜV SÜD South Asia Private Limited,
Mumbai
Member of TÜV SÜD Group

TÜV SÜD South Asia Pvt. Ltd. ● TÜV SÜD House ● Saki Naka ● Andheri (East) ● Mumbai – 400072 ● Maharashtra ● India

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

CERTIFICATE

The Certification Body
of TÜV SÜD South Asia Private Limited
certifies that

AFC SYSTEM PVT. LTD.
33, ECOTECH -12 GREATER NOIDA (U.P)
GREATER NOIDA West – 201 310, India

has implemented Energy Management System
in accordance with **ISO 50001:2018**
for the scope of

Design, Manufacturing, Supply and Installation of Metal and Wooden Modular Furniture

The certificate is valid from **2023-10-23** until **2026-10-22**
Subject to successful completion of annual periodic audits
The present status of this certificate can be obtained through TUV SUD website by scanning below QR code and by entering the certificate number (without spaces) on web page. Further clarifications regarding the status & scope of this certificate may be obtained by consulting the certification body at info.in@tuvsud.com

Certificate Registration No. **99 118 00070**

Date of Initial certification: **2023-10-23**

Issue Date: **2023-10-23** Rev. **00**

Rahul Kale
Head of Certification Body
of TÜV SÜD South Asia Private Limited,
Mumbai
Member of TÜV SÜD Group

TÜV SÜD South Asia Pvt. Ltd. ● TÜV SÜD House ● Saki Naka ● Andheri (East) ● Mumbai – 400072 ● Maharashtra ● India

Bureau Veritas Certification

AFC System Private Limited

Plot No. 33, Ecotech XII, Dist: Gautam Budha Nagar Greater Noida (W) - 201310, Uttar Pradesh, India

Bureau Veritas Certification Holding (BVCH) certifies that the company has implemented a FSCTM product groups control system according to the Forest Stewardship CouncilTM certification system, in the above location and complies with the requirements of Standard:

FSC Chain of Custody Certification standard, Ref.: FSC-STD-40-004 V3-1

For its activities concerning:

Manufacturing and Sale of custom furniture and office furniture certified FSC 100% and FSC Mix.*

*Updated list of products & species on the FSC database (info.fsc.org)

Type of certification: Single

Original certification date:	08 November 2023
Certification start date:	08 November 2023
Expiration date:	07 November 2028
FSC Certificate code:	BV-COC-191418
Certificate No. / Version:	IN044959/1
Contract No:	19138179
Issue date:	14 November 2023

Nicolas MEY
Signed on behalf of BVCH

The validity of this certification shall be verified on: info.fsc.org
This certificate itself does not constitute evidence that a particular product supplied by the certificate holder is FSC-certified or FSC Controlled Wood. Products offered, shipped or sold by the certificate holder can only be considered covered by the scope of this certificate when the required FSC claim is clearly stated on sales and delivery documents.

Bureau Veritas Certification Holding - Tour ALTO, 4 place des saisons, 92400 COURBEVOIE - France: www.bureauveritas.com

Certification decision office: Bureau Veritas Certification China, Room 02, 9 / F, West Office Building 1, Oriental Economic and Trade City, Oriental Plaza, No.1 East Chang'an Street, Dongcheng District, Beijing, P.R.C. 100738

Contracting office: Bureau Veritas Certification India
A list of the products or services that are included in the scope of the certificate may be obtained on request to Bureau Veritas Certification. This certificate remains the property of Bureau Veritas Certification, all copies or reproductions and the certificate itself shall be returned or destroyed on Bureau Veritas certification request. All certificates not in English are for reference only

FSC
www.fsc.org
FSC® A000504
The mark of responsible forestry

Bureau Veritas Certification

BALAJI ACTION BUILDWELL PVT. LTD.

PLOT NO. C-34& 34 (A) TO (D), C-6(A) TO (C), C-3, C-98,
PLOT 04 AND 05 ELDECO SIDCUL IND PARK, SITARGUNJ, DIST. UDDHAM , UTTRAKHAND
UDDHAM SINGH NAGAR - 262405, , INDIA

Bureau Veritas Certification Holding (BVCH) certifies that the company has implemented a FSCTM product groups control system according to the Forest Stewardship CouncilTM certification system, in the above location and complies with the requirements of Standard:

FSC Chain of Custody Certification standard, Ref.: FSC-STD-40-004 V3-1

For its activities concerning:

MANUFACTURING AND SALES OF PARTICLEBOARD, HIGH-DENSITY FIBREBOARD (HDF) AND MEDIUM-DENSITY FIBREBOARD (MDF) CERTIFIED FSC 100%, FSC MIX AND FSC CONTROLLED WOOD AND LAMINATED FLOORING CERTIFIED FSC MIX USING TRANSFER SYSTEM AND CREDIT SYSTEM.*

*Updated list of products & species on the FSC database (info.fsc.org)

Type of certification: Single

Original certification date:	07 October 2019
Certification start date:	07 October 2019
Expiration date:	06 October 2024
FSC Certificate code:	BV-COC-151638/ BV-CW-151638
Certificate No. / Version:	IN042089/1
Contract No:	15072280
Issue date:	29 December 2022

Nicolas MEY
Signed on behalf of BVCH

The mark of responsible forestry

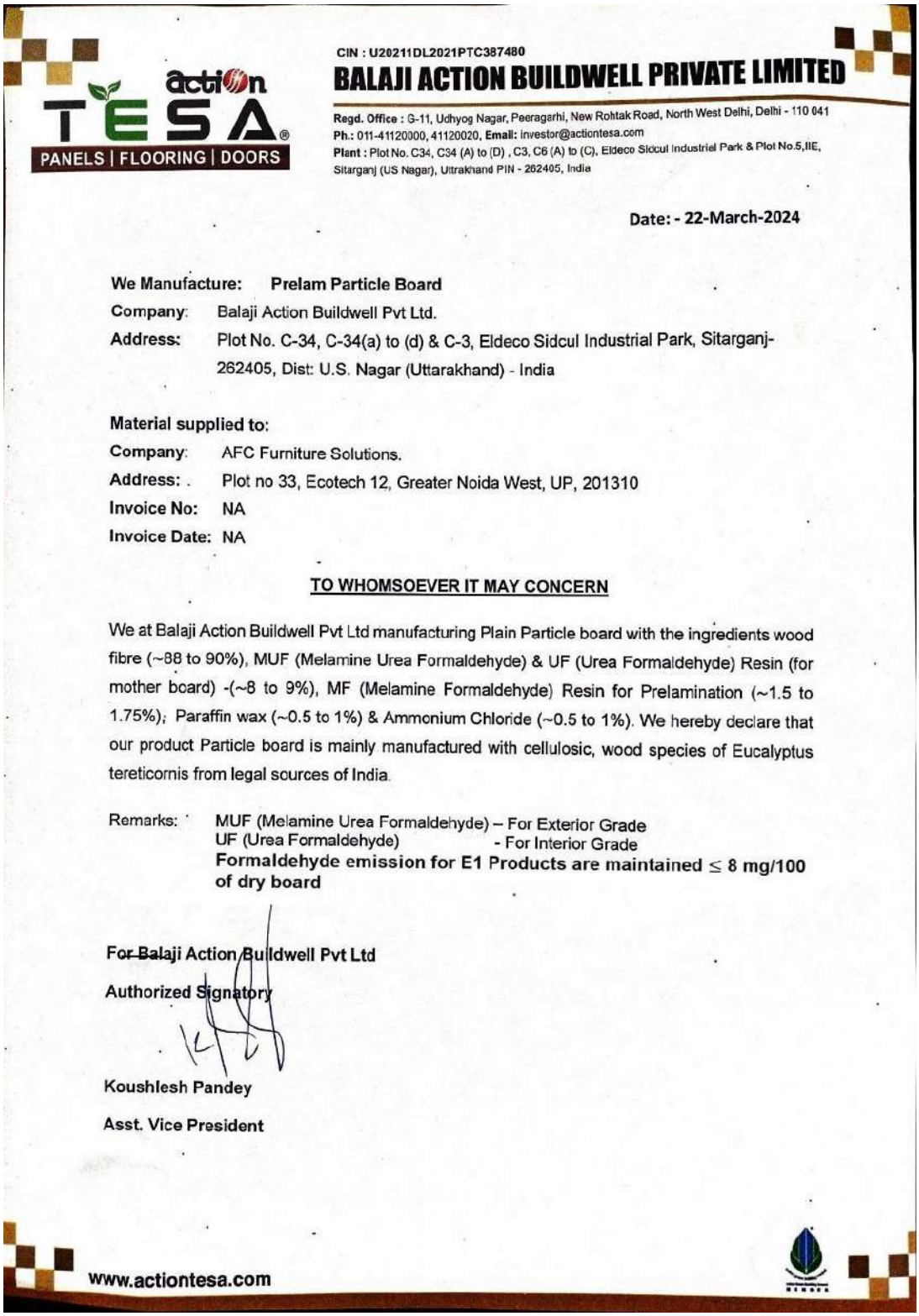
The validity of this certification shall be verified on: info.fsc.org This certificate itself does not constitute evidence that a particular product supplied by the certificate holder is FSC-certified or FSC Controlled Wood. Products offered, shipped or sold by the certificate holder can only be considered covered by the scope of this certificate when the required FSC claim is clearly stated on sales and delivery documents.

Bureau Veritas Certification Holding – 8, cours du Triangle - 92800 Puteaux - France: www.bureauveritas.com

Certification decision office: Bureau Veritas Certification China, Room 02, 9 / F, West Office Building 1, Oriental Economic and Trade City, Oriental Plaza, No.1 East Chang'an Street, Dongcheng District, Beijing, P.R.C. 100738

Contracting office: Bureau Veritas Certification INDIA

A list of the products or services that are included in the scope of the certificate may be obtained on request to Bureau Veritas Certification. This certificate remains the property of Bureau Veritas Certification, all copies or reproductions and the certificate itself shall be returned or destroyed on Bureau Veritas certification request. All certificates not in English are for reference only



CIN : U20211DL2021PTC387480

BALAJI ACTION BUILDWELL PRIVATE LIMITED

Regd. Office : G-11, Udhyog Nagar, Peeragarhi, New Rohtak Road, North West Delhi, Delhi - 110 041
Ph.: 011-41120000, 41120020, Email: investor@actiontesa.com
Plant : Plot No. C34, C34 (A) to (D) , C3, C6 (A) to (C), Eldeco Sidcul Industrial Park & Plot No.5,IIE, Sitarganj (US Nagar), Uttrakhand PIN - 262405, India

PANELS | FLOORING | DOORS

Date: - 22-March-2024

We Manufacture: **Prelam Particle Board**
Company: Balaji Action Buildwell Pvt Ltd.
Address: Plot No. C-34, C-34(a) to (d) & C-3, Eldeco Sidcul Industrial Park, Sitarganj-262405, Dist: U.S. Nagar (Uttarakhand) - India

Material supplied to:
Company: AFC Furniture Solutions.
Address: Plot no 33, Ecotech 12, Greater Noida West, UP, 201310
Invoice No: NA
Invoice Date: NA

TO WHOMSOEVER IT MAY CONCERN

We at Balaji Action Buildwell Pvt Ltd manufacturing Plain Particle board with the ingredients wood fibre (~88 to 90%), MUF (Melamine Urea Formaldehyde) & UF (Urea Formaldehyde) Resin (for mother board) -(~8 to 9%), MF (Melamine Formaldehyde) Resin for Prelamination (~1.5 to 1.75%); Paraffin wax (~0.5 to 1%) & Ammonium Chloride (~0.5 to 1%). We hereby declare that our product Particle board is mainly manufactured with cellulosic, wood species of Eucalyptus tereticornis from legal sources of India.

Remarks: MUF (Melamine Urea Formaldehyde) – For Exterior Grade
UF (Urea Formaldehyde) - For Interior Grade
Formaldehyde emission for E1 Products are maintained ≤ 8 mg/100 of dry board

For Balaji Action Buildwell Pvt Ltd

Authorized Signatory

Koushlesh Pandey

Asst. Vice President

www.actiontesa.com

Assumptions values of concentration for chemicals based on above statement – 1% Ammonium chloride, 1% Paraffin Wax, 3.6% Urea, 2.67% Melamine. Formaldehyde content was taken based on Prelam Borad test report attached below.

CIN : U20211DL2021PTC387480

BALAJI ACTION BUILDWELL PRIVATE LIMITED

Regd. Office : G-11, Udhyog Nagar, Peeragarhi, New Rohtak Road, North West Delhi, Delhi - 110 041
Ph.: 011-41120000, 41120020, **Email:** investor@actiontesa.com
Plant : Plot No. C34, C34 (A) to (D) , C3, C6 (A) to (C), Eldeco Sidcul Industrial Park & Plot No.5,IIE, Sitarganj (US Nagar), Uttrakhand PIN - 262405, India

Thickness: 25.00 MM	**Party Name: AFC SYSTEM**
Date: 13.05.2022	**Batch Number: 09.05.22**
Invoice No. 2223003991	**Date Of Manufacturing: 09.05.2022**
Vehicle Number: UP31T-5454	**Date Of Sampling: 09.05.2022**
Date Of Testing: 10.05.2022	

SPECIFICATIONS/TEST RESULT

TESA INTERIOR GRADE PRELAMINATED PARTICLE BOARD E1

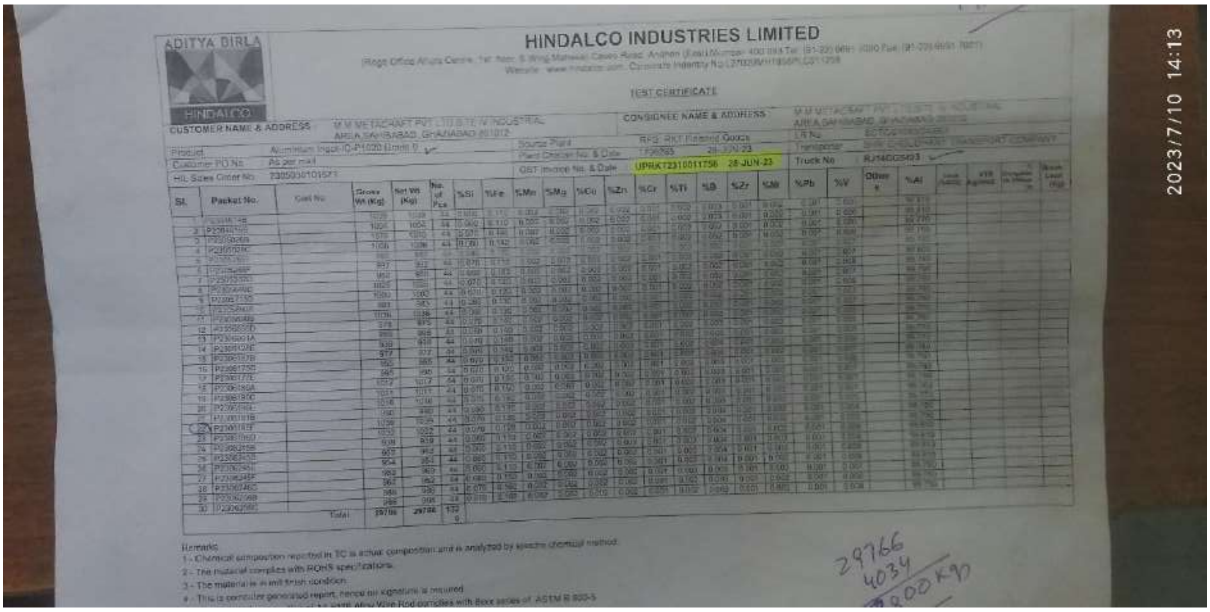
Sl.No.	PROPERTIES	UNIT	Specification As Per I.S. : 12823	Results
1	Dimensions			
	Thickness	(%)	±5	24.94
	Length	mm	±5	2443
	Width	mm	±5	1833
2	Density	Kg/m^3	500 - 900	640
3	Variation from mean density	(%)	±10	2.83
4	Moisture Content	%	5 - 15	6.73
5	Linear Expansion (swelling in water), 2hrs. Soaking			
	Thickness	%	12.00	10.89
6	Water Absorption			
	a) After 2 Hr. soaking	%	15.00	13.32
	b) After 24 Hr. soaking	%	30.00	28.32
7	Modulus of Rupture			
	Average	N/mm^2	11.00	13.18
	Minimum individual	N/mm^2	10.00	-
8	Modulus Of Elasticity			
	Average	N/mm^2	2500	2665
	Minimum individual	N/mm^2	2200	-
9	Internal Bond			
	upto and above 20mm Average	N/mm^2	0.30	0.32
10	Screw Withdrawal Strength			
	Face	N	1250	1541
	Edge (for thick >12mm)	N	750	1056
11	Resistance to steam		Should Pass	Pass
12	Resistance to crack		Should Pass	Pass
13	Resistance to cigarette burn		Should Pass	Pass
14	Resistance to stain		Should Pass	Pass
15	Resistance to surface abrasion		450	470
16	Free Formaldehyde Content (I.S: 13745.1993)	mg/100 gm. of dry board	≤ 8	4.12

Chemist

Authorised Signatory

Group	Product name	Purpose of use	Consumption from april to dec 23	Consumption per month	Unit	Use in material	Monthly production of deskpro (kg)
Chemical Item	TARPIN OIL	For Cleaning	4200	467	litre	wood	622500
Adhesive items	JOWAT HOTMELT 280.31 (WHITE)	For Production	1400	156	Kg.	wood	622500
Adhesive items	HOT MELT GLUE 280-50	For Production	400	44	Kg.	wood	622500
Chemical Item	KEM ECORITE AC 1112 L	Powder Coating	4900	544	Kg.	metal	622500
Chemical Item	KEM ECORITE PH 2510	Powder Coating	2510	279	Kg.	metal	622500
Chemical Item	KEM ECORITE CS 1602-D	Powder Coating	320	36	Kg.	metal	622500
Chemical Item	KEM ECORITE AC 1209	Powder Coating	50	6	Kg.	metal	622500
Chemical Item	KEM ECORITE 2803	Powder Coating	0	0	Kg.	metal	622500
Chemical Item	POWEDER AKZONOBEL TEXTURE RAVEN	Powder Coating	3620	402	Kg.	metal	622500
Chemical Item	POWEDER AKZONOBEL TEXTURE(AF SN	Powder Coating	10000	1111	Kg.	metal	622500
Chemical Item	BLUE MATT RAPID	Powder Coating	20	2	Kg.	metal	622500
Chemical Item	DA GREY MATT HE15005	Powder Coating	520	58	Kg.	metal	622500
Chemical Item	POWDER GRAPHITE GREY PP - RAPID	Powder Coating	20	2	Kg.	metal	622500
Chemical Item	POWDER GRAPHITE GREY TEXTURE - RAPID	Powder Coating	2050	228	Kg.	metal	622500
Chemical Item	POWDER GREY TEXTURE RAPID	Powder Coating	1740	193	Kg.	metal	622500
Chemical Item	POWDER HAVELLS GREY GLOSSY HE9S009 RAPID COAT	Powder Coating	60	7	Kg.	metal	622500
Chemical Item	POWDER MISTY GREY MATT	Powder Coating	960	107	Kg.	metal	622500

	HE15094 RAPID COAT						
Chemical Item	POWDER NUT BROWN MATT - RAPID	Powder Coating	300	33	Kg.	metal	622500
Chemical Item	POWDER RAL 7035 MATT-RAPID COAT	Powder Coating	20	2	Kg.	metal	622500
Chemical Item	POWDER RAPID COAT NEW IVORY S/G HIVS013	Powder Coating	105	12	Kg.	metal	622500
Chemical Item	POWDER WHITE TEXTURE HWHT-001 RAPIDCOAT	Powder Coating	100	11	Kg.	metal	622500
Chemical Item	POWER IVORY SATIN HI2S013 RAPID COAT	Powder Coating	20	2	Kg.	metal	622500
Chemical Item	POWER MET SILVER ASH GREY HSIS-001 RAPID COAT	Powder Coating	210	23	Kg.	metal	622500
Chemical Item	POWER MUNSHELL GREY TEXTURE HE0T023 RAPID COAT	Powder Coating	3600	400	Kg.	metal	622500
Chemical Item	POWER OXFORD BLUE GLOSSY HBIS 004 RAPID COAT	Powder Coating	0	0	Kg.	metal	622500
Chemical Item	POWER PP RAL 9003 WHITE MATT RAPID COAT	Powder Coating	20	2	Kg.	metal	622500
Chemical Item	POWER PP RAL MATT-7024 RAPID COAT	Powder Coating	100	11	Kg.	metal	622500
Chemical Item	POWER RAL2008 HELLROTORANGE RAPID COAT	Powder Coating	20	2	Kg.	metal	622500
Chemical Item	PU WHITE GLOSSY UWHS-003	Powder Coating	70	8	Kg.	metal	622500
Chemical Item	RAPID COAT ULTRA BLUE TEXTURE HBIT003	Powder Coating	20	2	Kg.	metal	622500



ADITYA BIRLA
HINDALCO

HINDALCO INDUSTRIES LIMITED

TEST CERTIFICATE

CUSTOMER NAME & ADDRESS: M M METACRAFT PVT LTD ... INDUSTRIAL AREA SAHIBABAD, GHAZIABAD 201012

CONSIGNEE NAME & ADDRESS: M M METACRAFT PVT LTD ... AREA SAHIBABAD, GHAZIABAD

Product: Aluminium Ingot-IC-P1020 Grade 0

Customer PO No: As per mail

GST Invoice No. & Date: UPRKT2310011756 28-JUN-23

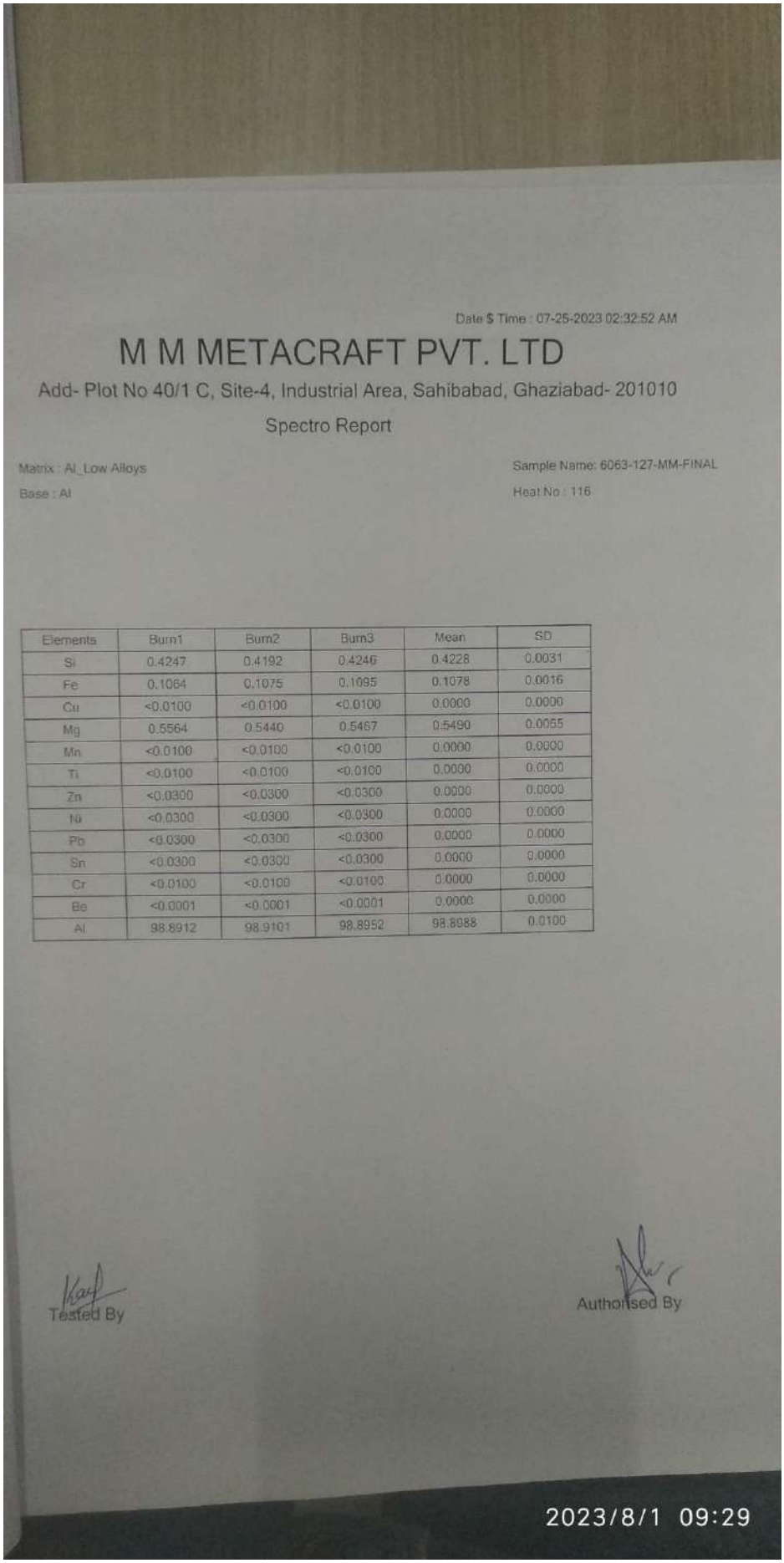
Truck No: RJ14GC5493

Sl.	Packet No.	Coil No.	Gross Wt (Kg)	Net Wt (Kg)	No. of Pcs	%Si	%Fe	%Mn	%Mg	%Cu	%Zn	%Cr	%Ti	%B	%Zr	%Ni	%Pb	%V	Others	%Al
		Total	29766	29766	1320															

Remarks
1 - Chemical composition reported in TC is actual composition and is analyzed by spectro chemical method.
2 - The material complies with ROHS specifications.
3 - The material is in mill finish condition.
4 - This is computer generated report, hence no signature is required.

29766
4034
...800 Kg

2023/7/10 14:13



Date $ Time : 07-25-2023 02:32:52 AM

M M METACRAFT PVT. LTD

Add- Plot No 40/1 C, Site-4, Industrial Area, Sahibabad, Ghaziabad- 201010

Spectro Report

Matrix : Al_Low Alloys
Base : Al

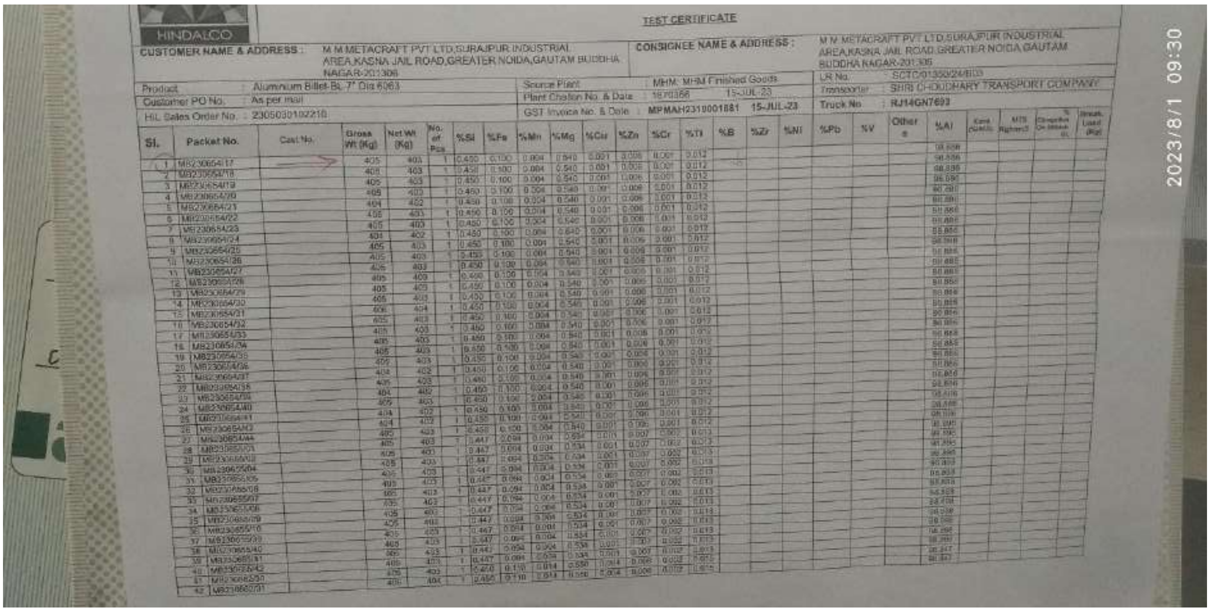
Sample Name: 6063-127-MM-FINAL
Heat No : 116

Elements	Burn1	Burn2	Burn3	Mean	SD
Si	0.4247	0.4192	0.4246	0.4228	0.0031
Fe	0.1064	0.1075	0.1095	0.1078	0.0016
Cu	<0.0100	<0.0100	<0.0100	0.0000	0.0000
Mg	0.5564	0.5440	0.5467	0.5490	0.0065
Mn	<0.0100	<0.0100	<0.0100	0.0000	0.0000
Ti	<0.0100	<0.0100	<0.0100	0.0000	0.0000
Zn	<0.0300	<0.0300	<0.0300	0.0000	0.0000
Ni	<0.0300	<0.0300	<0.0300	0.0000	0.0000
Pb	<0.0300	<0.0300	<0.0300	0.0000	0.0000
Sn	<0.0300	<0.0300	<0.0300	0.0000	0.0000
Cr	<0.0100	<0.0100	<0.0100	0.0000	0.0000
Be	<0.0001	<0.0001	<0.0001	0.0000	0.0000
Al	98.8912	98.9101	98.8952	98.8988	0.0100

Tested By

Authorised By

2023/8/1 09:29



HINDALCO

TEST CERTIFICATE

CUSTOMER NAME & ADDRESS :	M M METACRAFT PVT LTD,SURAJPUR INDUSTRIAL AREA,KASNA JAIL ROAD,GREATER NOIDA,GAUTAM BUDDHA NAGAR-201306	CONSIGNEE NAME & ADDRESS :	M M METACRAFT PVT LTD,SURAJPUR INDUSTRIAL AREA,KASNA JAIL ROAD,GREATER NOIDA,GAUTAM BUDDHA NAGAR-201306
Product : Aluminium Billet-BL 7" Dia 6063		Source Plant : MHM: MHM Finished Goods	LR No. : SCTC/01350/24/803
Customer PO No. : As per mail		Plant Challan No. & Date : 1870366 15-JUL-23	Transporter : SHRI CHOUDHARY TRANSPORT COMPANY
HIL Sales Order No. : 2305030102210		GST Invoice No. & Date : MPMAH2310001881 15-JUL-23	Truck No. : RJ14GN7693

Sl.	Packet No.	Cast No.	Gross Wt (Kg)	Net Wt (Kg)	No. of Pcs	%Si	%Fe	%Mn	%Mg	%Cu	%Zn	%Cr	%Ti	%B	%Zr	%Ni	%Pb	%V	Others	%Al	Kerf	MTS	% Elongation	Break Load (Kg)
1	MB230654/17		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							98.886				
2	MB230654/18		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							98.886				
3	MB230654/19		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							98.886				
4	MB230654/20		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
5	MB230654/21		404	402	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
6	MB230654/22		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
7	MB230654/23		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
8	MB230654/24		404	402	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
9	MB230654/25		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
10	MB230654/26		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
11	MB230654/27		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
12	MB230654/28		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
13	MB230654/29		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
14	MB230654/30		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
15	MB230654/31		406	404	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
16	MB230654/32		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
17	MB230654/33		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
18	MB230654/34		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
19	MB230654/35		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
20	MB230654/36		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
21	MB230654/37		404	402	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
22	MB230654/38		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
23	MB230654/39		404	402	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
24	MB230654/40		405	403	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
25	MB230654/41		404	402	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
26	MB230654/42		404	402	1	0.450	0.100	0.004	0.540	0.001	0.006	0.001	0.012							[illegible]				
27	MB230654/44		405	403	1	0.447	0.094	0.004	0.534	0.001	0.007	0.002	0.013							98.895				
28	MB230655/01		405	403	1	0.447	0.094	0.004	0.534	0.001	0.007	0.002	0.013							98.895				
29	MB230655/02		405	403	1	0.447	0.094	0.004	0.534	0.001	0.007	0.002	0.013							98.895				
30	MB230652/04		405	403	1	0.447	0.094	0.004	0.534	0.001	0.007	0.002	0.013							98.895				
31	MB230655/05		405	403	1	0.447	0.094	0.004	0.534	0.001	0.007	0.002	0.013							98.903				
32	MB230655/06		405	403	1	0.447	0.094	0.004	0.534	0.001	0.007	0.002	0.013							98.903				
33	MB230655/07		405	403	1	0.447	0.094	0.004	0.534	0.001	0.007	0.002	0.013							[illegible]				
34	MB230655/08		405	403	1	0.447	0.094	0.004	0.534	0.001	0.007	0.002	0.013							[illegible]				
35	MB230655/09		405	403	1	0.447	0.094	0.004	0.534	0.001	0.007	0.002	0.013							[illegible]				
36	MB230655/10		405	403	1	0.447	0.094	0.004	0.534	0.001	0.007	0.002	0.013							[illegible]				
37	MB230655/39		405	403	1	0.447	0.094	0.004	0.534	0.001	0.007	0.002	0.013							[illegible]				
38	MB230655/40		405	403	1	0.447	0.094	0.004	0.534	0.001	0.007	0.002	0.013							[illegible]				
39	MB230655/41		405	403	1	0.447	0.094	0.004	0.534	0.001	0.007	0.002	0.013							[illegible]				
40	MB230652/42		405	403	1	0.450	0.110	0.014	0.550	0.004	0.008	0.002	0.015							98.847				
41	MB230656/30		406	404	1	0.450	0.110	0.014	0.550	0.004	0.008	0.002	0.015							98.847				
42	MB230656/31																							

2023/8/1 09:30

Date: - 15-09-2022

Product Name: MDF (HNS Code -4411130)

UOM: SQMTR

Manufactured By:

A Balaji Action Buildwell Private Limited
Plot No. C34, C34A to D & C3, Eldeco Sidcul Industrial Pard, Sitarganj
U.S. Nagar – 262405 (Uttarakhand – India)

Supplied To:

-

-

We, hereby declare that we supply the above-mentioned material and it is: **Recyclable / Not Recyclable** (tick one).

At the end-of-life, the product would need to be disposed of to the municipal waste treatment facilities or other certified agencies/organizations who are authorized for recycling the material or use it as a raw material during their own production.

Our supplied material is 100 % recyclable when disposed to above mentioned agencies.

Furthermore, the raw material supplied by us contains/does not contain Pre & Post-Consumer recycled content as mentioned below:

Raw Material	Post-Consumer Recycled Content Used (%)	Pre-Consumer Recycled Content Used (%)
MDF	Nill	20%

We recommend our customer to not throw away the material out in open and always dispose it as per local/regional government laws.

Full Name: Koushlesh Pandey

Signature:

BALAJI ACTION BUILDWELL PVT LTD. SITARGANJ

Seal of the Authorized Person:

Date: - 15-09-2022

Product Name: Particle Board (HSN Code-44101110)

UOM: SQMTR

Manufactured By:
A Balaji Action Buildwell Private Limited
Plot No. C34, C34A to D & C3, Eldeco Sidcul Industrial Pard, Sitarganj
U.S. Nagar – 262405 (Uttarakhand – India).

Supplied To:
-
-

We, hereby declare that we supply the above-mentioned material and it is: **Recyclable / not recyclable** (tick one).

At the end-of-life, the product would need to be disposed of to the municipal waste treatment facilities or other certified agencies/organizations who are authorized for recycling the material or use it as a raw material during their own production.

Our supplied material is 100 % recyclable when disposed to above mentioned agencies.

Furthermore, the raw material supplied by us contains/does not contain Pre & Post-Consumer recycled content as mentioned below:

Raw Material	Post-Consumer Recycled Content Used (%)	Pre-Consumer Recycled Content Used (%)
PB	Nill	17.50%

We recommend our customer to not throw away the material out in open and always dispose it as per local/regional government laws.

Full Name: Koushlesh Pandey

Signature:

Seal of the Authorized Person:

Test Report - Products

TÜVRheinland®
Precisely Right.

Test Report: 158287816a1 001

VOC emission test

For testing of individual furniture components following ANSI/BIFMA M7.1-2011 (R-2021)

1. Manufacturer, product and sample identification

Client Information	
Client:	**AFC SYSTEM PVT LTD**
Contact Information:	33, ECOTECH 12, WEST GREATER NOIDA, UTTAR PRADESH, INDIA - 201310
City/State/Country:	INDIA
Contact name:	SHAHNAWAZ SHEIKH
Phone number:	9823766119
Manufacturer Information	
Manufacturing company:	AFC SYSTEM PVT LTD
Product name:	Curvivo, Livo, Deskpro, XBench, Proceed, Sleek, Trio, Optima, Fenix Series, Adaptable
Product commercial part no.:	AFCDESK
Product item no.:	AFCDESK
Product category:	Desk tables and systems
Manufacturer ID:	Hong kong- 272525106996- fedex
Date manufactured:	2024-03-20
Date collected:	2024-03-20
Date shipped:	2024-03-22
Sample/Specimen Information	
Date received:	2024-03-28
Specimen ID (Lab tracking No.):	A003685994
Conditioning period start & duration:	2024-04-05, 3 days
Test period start & duration:	2024-04-08, 96 hours
Condition at delivery:	Test item complete and undamaged
Place of testing:	Chemical laboratory Hong Kong

TÜV Rheinland Hong Kong Ltd. • 3-4/F., Fou Wah Industrial Building, 10-16 Pun Shan Street, Tsuen Wan, Hong Kong
Tel.: (852) 2192 1000 Fax: (852) 2192 1003 Mail: service-qc@tuv.com • Web: www.tuv.com

2. Test Methods and conditions

An estimated building concentration compliance approach of the sample is considered for the analysis. The whole product is loaded inside the test chamber.

Table 1. Sample emitting parts

Component	Material Description	No. of pcs of sample	Surface area in chamber (m^2)
Curvivo, Livo, Deskpro, XBench, Proceed, Sleek, Trio, Optima, Fenix Series, Adaptable	Pre-laminated particle board, ABS edge banding, aluminium profiles, fabric, powder coat	4	0.50

Chamber conditions are described in table 2.

Table 2. Test chamber conditions

Test Parameters	Test chamber conditions
Emission test chamber volume	1 m^3
Chamber air supply flow rate [$Q_{chamber}$]	1 m^3/h
Temperature	23 ± 1°C
Humidity	50 ± 5 %
Test specimen description	Entire sample
Test specimen amount [$A_{chamber}$]	0.50 m^2
Test duration	168 h

VOC and aldehydes active sampling were performed in duplicate by pumping air through respective sorbent just before beginning of the test, then after 72 ± 2 hours and 168 ± 2 hours after introduction of the test specimen in the emission test chamber. Sampling conditions are represented in Table 3.

Table 3. Sampling conditions

Sampling conditions	VOC	Aldehydes (C_1-C_2)
Number of sampled tubes	2	2
Sorbent type	Tenax TA	DNPH
Sampling duration	54 min	100 min
Sampling air flow rate	75 mL/min	0.8 L/min
Sampled air volume	4.0 L	80L

The chemical analysis was performed following test methods ISO 16000-3 and ISO 16000-6 for the analysis of respectively aldehydes in DNPH cartridges by HPLC-UV and VOCs/TVOCs in Tenax tubes by TD-GC-MS.

TÜV Rheinland Hong Kong Ltd. • 3-4/F., Fou Wah Industrial Building, 10-16 Pun Shan Street, Tsuen Wan, Hong Kong
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3. Data Analysis Procedures

3.1 Emission factors

The emission factor for each individual VOC (including individual aldehydes) and TVOC was calculated using equation 1, where the emission factors at 72 h and 168 h [$E(t_i)$] is equal to the product of the chamber air supply flow rate [$Q_{chamber}$] and the chamber concentration [$C_{chamber}$] at the different times, divided by the no. of component units [$A_{chamber}$] of product tested in the test chamber.

$$E(t_i) = \frac{Q_{chamber} \times C_{chamber}}{A_{chamber}} \qquad \textit{Equation 1}$$

The emission factor for each individual aldehydes was calculated using equation 2, where the emission factors at 72 h and 168 h [$E(t_i)_{\mu mol}$] is equal to the emission factor for each individual aldehydes [$E(t_i)$] divided by the molecular weight (molar mass) [MW] of the respective compound.

$$E(t_i)_{\mu mol} = \frac{E(t_i)}{MW} \qquad \textit{Equation 2}$$

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Tel.: (852) 2192 1000 Fax: (852) 2192 1003 Mail: service-qc@tuv.com • Web: www.tuv.com

4. Results

Table 4. Chamber concentrations [$C_{chamber}$] of VOCs between n-C6 and n-C16 measured by GC/MS

Substance	CAS no.	Chamber concentration (µg/m³)	
		72 h	168 h
Butanoic acid	107-92-6	2	n.d.
1-Butanol	71-36-3	1	1
Octane	111-65-9	2	n.d.
Nonane	111-84-2	2	1
Decane	124-18-5	2	1
Dodecane	112-40-3	3	2
Tridecane	629-50-5	5	2
Tetradecane	629-59-4	5	3
Pentadecane	629-62-9	2	n.d.
Hexadecane	544-76-3	4	2
Ethylbenzene	100-41-4	1	n.d.
2-Butanone	78-93-3	2	2
2-Pentanone	107-87-9	2	1
2-Heptanone	110-43-0	3	1
Cyclohexanone	108-94-1	1	n.d.
Butyrolactone	96-48-0	6	n.d.
2(3H)-Furanone, 5-ethyldihydro-	695-06-7	2	n.d.
5-Tetradecene, (E)-	41446-66-6	2	n.d.
2(3H)-Furanone, dihydro-4-methyl-	1679-49-8	2	1
4-Phenylcyclohexene	4994-16-5	n.d.	n.d.
Total of all VOC (TVOC) (C6-C16)	--	49	17

Note:
n.d. = not detected (< 1 µg/m³)

The DNPH cartridges were analyzed by HPLC and quantified as described in BIFMA M7.1-2011 (R-2021) in order to obtain the chamber concentrations of formaldehyde and acetaldehyde.

Table 5. Chamber concentrations of formaldehyde and acetaldehyde by HPLC analysis

Substance	CAS no.	Chamber concentration (µg/m³)	
		72 h	168 h
Formaldehyde	50-00-0	5	n.d.
Acetaldehyde	75-07-0	n.d.	n.d.

Note:
n.d. = not detected (< 5 µg/m³)

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Table 6. Calculated specific emission factor for identified VOCs, TVOC, formaldehyde and acetaldehyde

Substance	CAS no.	Emission factor (µg/m²h)	
		72 h	168 h
Butanoic acid	107-92-6	4.03	--
1-Butanol	71-36-3	2.02	2.02
Octane	111-65-9	4.03	--
Nonane	111-84-2	4.03	2.02
Decane	124-18-5	4.03	2.02
Dodecane	112-40-3	6.05	4.03
Tridecane	629-50-5	10.08	4.03
Tetradecane	629-59-4	10.08	6.05
Pentadecane	629-62-9	4.03	--
Hexadecane	544-76-3	8.06	4.03
Ethylbenzene	100-41-4	2.02	--
2-Butanone	78-93-3	4.03	4.03
2-Pentanone	107-87-9	4.03	2.02
2-Heptanone	110-43-0	6.05	2.02
Cyclohexanone	108-94-1	2.02	--
Butyrolactone	96-48-0	12.10	--
2(3H)-Furanone, 5-ethyldihydro-	695-06-7	4.03	--
5-Tetradecene, (E)-	41446-66-6	4.03	--
2(3H)-Furanone, dihydro-4-methyl-	1679-49-8	4.03	2.02
4-Phenylcyclohexene	4994-16-5	--	--
Total of all VOC (TVOC) (C6-C16)	--	98.79	34.27
Formaldehyde	50-00-0	10.08	--
Acetaldehyde	75-07-0	--	--

Table 7. Calculated specific emission factor of aldehydes

Substance	CAS no.	Emission factor (µmol/m²h)	
		72h	168 h
Formaldehyde	50-00-0	0.34	--
Acetaldehyde	75-07-0	--	--
Total aldehydes	--	0.34	--

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Table 8. Calculation of emission factors at 336 hours based on the Power law Model Prediction of VOCs and TVOC

Substance	CAS no.	Power Law Model Coefficients for $E=at^{-b}$		Emission factor at 336 hours ($\mu g/m^2h$)
		a	b	
Butanoic acid	107-92-6	--	--	--
1-Butanol	71-36-3	2.02	0.00	2.02
Octane	111-65-9	--	--	--
Nonane	111-84-2	133.34	0.82	1.14
Decane	124-18-5	133.34	0.82	1.14
Dodecane	112-40-3	46.82	0.48	2.89
Tridecane	629-50-5	1028.15	1.08	1.91
Tetradecane	629-59-4	132.82	0.60	3.98
Pentadecane	629-62-9	--	--	--
Hexadecane	544-76-3	266.69	0.82	2.29
Ethylbenzene	100-41-4	--	--	--
2-Butanone	78-93-3	4.03	0.00	4.03
2-Pentanone	107-87-9	133.34	0.82	1.14
2-Heptanone	110-43-0	1548.35	1.30	0.82
Cyclohexanone	108-94-1	--	--	--
Butyrolactone	96-48-0	--	--	--
2(3H)-Furanone, 5-ethyldihydro-	695-06-7	--	--	--
5-Tetradecene, (E)-	41446-66-6	--	--	--
2(3H)-Furanone, dihydro-4-methyl-	1679-49-8	133.34	0.82	1.14
4-Phenylcyclohexene	4994-16-5	--	--	--
Total of all VOC (TVOC) (C6-C16)	--	20665.71	1.25	14.42

Table 9. Calculation of emission factors at 336 hours based on the Power law Model Prediction of aldehydes

Substance	CAS no.	Power Law Model Coefficients for $E=at^{-b}$		Emission factor at 336 hours ($\mu g/m^2h$)
		a	b	
Formaldehyde	50-00-0	--	--	--
Acetaldehyde	75-07-0	--	--	--
Total aldehydes	--	--	--	--

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5. Evaluation

Table 10. Evaluation according to the requirements of BIFMA X7.1-2011 (R-2021) for individual furniture components at 168 hours

Chemical Contaminant	Emissions Limits Open Plan Workstation	Emissions Limits Private Office Workstation	Test result at 168h	Evaluation
Formaldehyde (µg/m²hr)	42.3	85.1	--	Pass
TVOC (µg/m²hr)	345	694	34.27	Pass
Total Aldehydes (µmol/m²hr)	2.8	5.7	--	Pass
4-Phenylcyclohexene (µg/m²hr)	4.5	9.0	--	Pass

Table 11. Evaluation of individual VOCs at 336 hours according to ANSI/BIFMA e3-2019, Credit 7.6.2

Compound name	CAS no.	Open Plan Maximum Allowable Emission Factor (µg/m²h)	Private Office Maximum Allowable Emission Factor (µg/m²h)	Calculated emission factor at 336h (µg/m²h)	Evaluation
Butanoic acid	107-92-6	--	--	--	Pass
1-Butanol	71-36-3	--	--	2.02	Pass
Octane	111-65-9	--	--	--	Pass
Nonane	111-84-2	--	--	1.14	Pass
Decane	124-18-5	--	--	1.14	Pass
Dodecane	112-40-3	--	--	2.89	Pass
Tridecane	629-50-5	--	--	1.91	Pass
Tetradecane	629-59-4	--	--	3.98	Pass
Pentadecane	629-62-9	--	--	--	Pass
Hexadecane	544-76-3	--	--	2.29	Pass
Ethylbenzene	100-41-4	689	1392	--	Pass
2-Butanone	78-93-3	--	--	4.03	Pass
2-Pentanone	107-87-9	--	--	1.14	Pass
2-Heptanone	110-43-0	--	--	0.82	Pass
Cyclohexanone	108-94-1	--	--	--	Pass
Butyrolactone	96-48-0	--	--	--	Pass
2(3H)-Furanone, 5-ethyldihydro-	695-06-7	--	--	--	Pass
5-Tetradecene, (E)-	41446-66-6	--	--	--	Pass
2(3H)-Furanone, dihydro-4-methyl-	1679-49-8	--	--	1.14	Pass
4-Phenylcyclohexene	4994-16-5	--	--	--	Pass
Total of all VOC (TVOC) (C6-C16)	--	--	--	14.42	Pass
Formaldehyde	50-00-0	11	23	--	Pass
Acetaldehyde	75-07-0	48	97	--	Pass
Total aldehydes	--	--	--	--	Pass

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Table 12. Evaluation of individual VOCs at 336 hours according to CDPH/ EHLB Standard Method V1.2

Substance	CAS no.	Emission factor at 336 hours (µg/m²h)	Allowable Concentration (µg/m³)	Open-plan workstation estimated concentration (µg/m³)	Evaluation
Butanoic acid	107-92-6	--	--	--	Pass
1-Butanol	71-36-3	2.02	--	2.92	Pass
Octane	111-65-9	--	--	--	Pass
Nonane	111-84-2	1.14	--	1.66	Pass
Decane	124-18-5	1.14	--	1.66	Pass
Dodecane	112-40-3	2.89	--	4.19	Pass
Tridecane	629-50-5	1.91	--	2.76	Pass
Tetradecane	629-59-4	3.98	--	5.77	Pass
Pentadecane	629-62-9	--	--	--	Pass
Hexadecane	544-76-3	2.29	--	3.31	Pass
Ethylbenzene	100-41-4	--	1000	--	Pass
2-Butanone	78-93-3	4.03	--	5.84	Pass
2-Pentanone	107-87-9	1.14	--	1.66	Pass
2-Heptanone	110-43-0	0.82	--	1.19	Pass
Cyclohexanone	108-94-1	--	--	--	Pass
Butyrolactone	96-48-0	--	--	--	Pass
2(3H)-Furanone, 5-ethyldi-hydro-	695-06-7	--	--	--	Pass
5-Tetradecene, (E)-	41446-66-6	--	--	--	Pass
2(3H)-Furanone, dihydro-4-methyl-	1679-49-8	1.14	--	1.66	Pass
4-Phenylcyclohexene	4994-16-5	--	--	--	Pass
Total of all VOC (TVOC) (C6-C16)	--	14.42	--	20.89	Pass
Formaldehyde	50-00-0	--	9	--	Pass
Acetaldehyde	75-07-0	--	70	--	Pass
Total aldehydes	--	--	--	--	Pass

Table 13. Evaluation of formaldehyde at 336 hours according to ANSI/BIFMA e3-2019, Credit 7.6.3 – Individual furniture components maximum emission factor

Compound name	CAS no.	Open Plan Workstation Emission Factor (µg/m²h)	Private Office Workstation Emission Factor (µg/m²h)	Calculated emission factor at 336h (µg/m²h)	Evaluation
Formaldehyde	50-00-0	6.2	12.5	--	Pass

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6. Conclusion

The following indoor air quality emission criteria for testing of individual furniture components following ANSI/BIFMA M7.1-2011 (R-2021) have been met:

- ANSI/BIFMA X7.1/M7.1-2011 (R-2021), Private office, Open plan
- ANSI/BIFMA e.3-2019, Credit 7.6.1, Private office, Open plan
- ANSI/BIFMA e.3-2019, Credit 7.6.2, Private office, Open plan
- ANSI/BIFMA e.3-2019, Credit 7.6.3, Private office, Open plan
- CDPH/ EHLB Standard Method V1.2

Hong Kong, 2024-04-22

TÜV Rheinland Hong Kong Ltd.

Gary Choi
Project Executive

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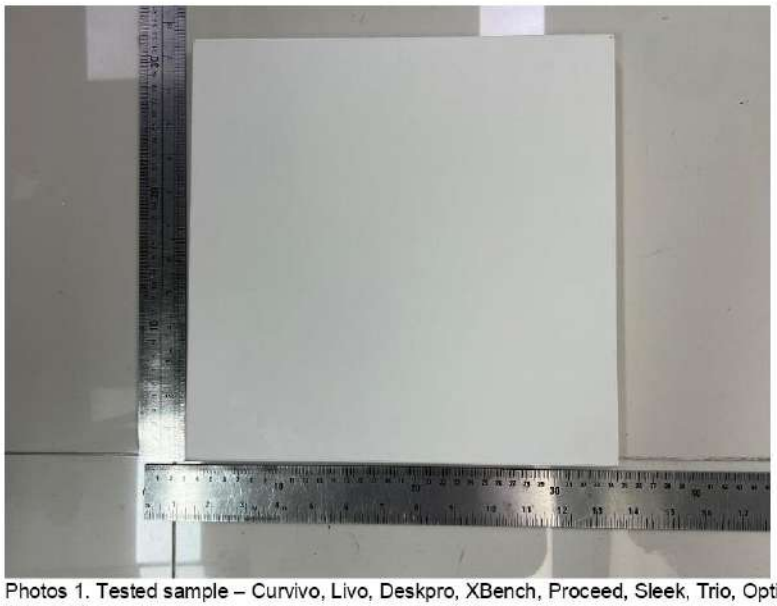
7. Photo



Photos 1. Tested sample – Curvivo, Livo, Deskpro, XBench, Proceed, Sleek, Trio, Optima, Fenix Series, Adaptable

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8. Chain of Custody

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Page 1 of 2

VOC EMISSION TESTING APPLICATION FORM AND CHAIN OF CUSTODY
揮發性及有機化合物釋放測試申請表

Please fill out one form per sample and return it to us. Thanks.

Internal use only / TÜV 萊茵內部使用
Order No: 158287816
Reviewed by (date):

Please ship sample to/ 請把樣品寄送到:
3/F., Fou Wah Industrial Building, 10-16 Pun Shan Street, Tsuen Wan, Hong Kong (Sample Reception)/

Please fill in by computer - send with sample, and per email/ 請使用電腦填寫 – 並連同樣品 及 透過電郵交回

Client/ 客戶	Report to be sent to/ 報告送到	Invoice to be sent to/ 發票送到	Copy of report to be sent to/ 報告副本送到
Company/ 公司	AFC SYSTEM PVT LTD	AFC SYSTEM PVT LTD	AFC SYSTEM PVT LTD
Contact person/ 聯絡人	SHAHNAWAZ SHEIKH	SHAHNAWAZ SHEIKH	SHAHNAWAZ SHEIKH
E-mail/ 電子郵件	shahnawaz@afcindia.in	shahnawaz@afcindia.in	afc@afcindia.in
Address/ 地址	33, ECOTECH 12, WEST GREATER NOIDA, UTTAR PRADESH, INDIA - 201310	33, ECOTECH 12, WEST GREATER NOIDA, UTTAR PRADESH, INDIA - 201310	33, ECOTECH 12, WEST GREATER NOIDA, UTTAR PRADESH, INDIA - 201310
Postcode/town/ 郵編/ 鎮	201310	201310	201310
Country/ 國家	INDIA	INDIA	INDIA
Telephone no./ 電話號碼	9823766119	9823766119	9823766110
Fax no./ 傳真號碼			
Your reference/ 您的參考			

Test Method(s) ordered:

1.	AgBB/DIBt (full test, incl. aldehydes) ☐	8.	**LGA Tested Safety & Contamination:**		
	Without aldehydes test after 28 days ☐		VOC/ 揮發性及有機化合物 ☐		
	AgBB/DIBt (only 7 days) ☐		Formaldehyde/ 甲醛 ☐		
	Without aldehydes after 7 days ☐		Odour/ 氣味 ☐		
2.	French mandatory VOC label (including 4 regulated CMR) ☐	9.	Formaldehyde/ 甲醛:		
3.	CDPH Section 01350 ☐		EN 717-1 ☒		
4.	FloorScore ☐		ISO 16000-3 (DNPH) ☒		
5.	ANSI/BIFMA M7.1-2011 ☒		ASTM D6007 ☒		
6.	Indoor Advantage ☐	10.	VOC emission/ 揮發性及有機化合物釋放		
7.	Indoor Advantage GOLD ☒		ISO 16000-6.9 ☒		
			ASTM 5116 ☒		

Further information – Please fill in only if necessary

Type of Chamber:	Length of testing:	Reporting of results:
Mid-scale ☐ Small-scale ☐	24h☐ 72h ☐ 168h ☒ 336h ☐ Other:	Emission Factors only ☐ Room concentrations modeling ☐
Other test/information:		
Report format:	PDF ☐ Printed ☐	Printed & PDF ☒

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EMAIL: samplepickup@hk.chn.tuv.com

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VOC EMISSION TESTING APPLICATION FORM AND CHAIN OF CUSTODY
揮發性及有機化合物釋放測試申請表

Internal use only / TÜV 萊茵內部使用
Order No: 158287816
Reviewed by (date):

Please fill out one form per sample and return it to us. Thanks.
請為每份測試樣辦填寫一份申請表，然後將填妥的申請表回傳到我司。謝謝。

Product Commercial Name:	Curvivo, Livo, Deskpro, XBench, Proceed, Sleek,Trio, Optimo, Fenix Series, Adaptable	**Product Commercial Part No.:**	AFCDESK
Product Dimensions: (height × width × thickness)	300 mm x 300 mm x 25mm thick	**Product item No.:**	AFCDESK
Manufacturer Sample Tracking ID:	Hong kong- 272525106996- fedex	**Date Manufactured:**	20-03-2024
Product Category and Use:	Desk tables and systems	**Sample Construction Material:**	Pre-laminated particle board, ABS edge banding, aluminium profiles, fabric, powder coat
Plant Name & Location:	AFC SYSTEM PVT LTD 33, ECOTECH 12, WEST GREATER NOIDA, UTTAR PRADESH, INDIA - 201310	**Collection Location in Plant:**	WOOD PACKING AND PARTITION PACKING AREA
Date and Time of collection:	20-03-2024 6PM IST	**Sample Collected by:**	SHAHNAWAZ
Storage of Sample after Sampling:	Wooden box	**Packing Material:**	Aluminium foil and wooden box
Packed and Shipped by:	AFC SYSTEM PVT LTD	**Shipping Date:**	22-03-2024
Carrier:	FEDEX	**Airbill Number:**	272525106996

FOR LABORATORY USE ONLY:			
Received by:	Gary Choi	**Received date:**	28 Mar 2024
Conditions of package:	FINE	**Conditions of Sample:**	FINE
Received by:	Gary Choi	**Signature:**	Gary
Company:	TÜV Rheinland Hong Kong Ltd	**Laboratory:**	Chemical Laboratory Hong Kong
Sample Number:	A003685994	**Report Number:**	158287816a1 001

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- END -

General Terms and Conditions of Business of TÜV Rheinland in Greater China

1. Scope

1.1 These General Terms and Conditions of Business of TÜV Rheinland in Greater China ("GTCBR") is made between the client and one or more member entities of TÜV Rheinland in Greater China as applicable as the case may be ("TÜV Rheinland"). The Greater China Area refers only to Mainland China, Hong Kong and Taiwan. The client shall not include:

a) a natural person resident in long-term legally binding contract under the applicable laws who concludes the contract not for the purpose of a daily use;

b) the incorporated or unincorporated entity duly organized, validly existing and capable to form legally binding contracts under the applicable law.

1.2 The following terms and conditions apply to agreed services including consultancy services, information, advisory and similar services as well as ancillary services and other secondary obligations provided within the scope of contractual performance.

1.3 Any standard terms and conditions of the client of any nature shall not apply and shall hereby be expressly excluded. In case client contractual terms and conditions of the client shall form part of the contract even if TÜV Rheinland does not explicitly object to them.

1.4 In the context of an ongoing business relationship with the client, the GTCBR shall also apply to future contracts with the client without TÜV Rheinland having to refer to them separately in each individual case.

2. Quotations

Unless otherwise agreed, all quotations submitted by TÜV Rheinland can be changed by TÜV Rheinland without notice prior to its acceptance and confirmation by the other party.

3. Contract with effective duration or contracts

3.1 The contract shall come into effect on the agreed terms upon the quotation letter of TÜV Rheinland or a separate confirmation document being signed by both contracting parties, or upon the work requested by the client being carried out by TÜV Rheinland. If the client instructs TÜV Rheinland without receiving a quotation from TÜV Rheinland beforehand, TÜV Rheinland is, in the sole discretion, entitled to accept the order by giving written notice or each acceptance (including notice by electronic means) or by performing the requested work or services.

3.2 The contract term corresponds to the contract duration set out in the contract in accordance with article 3.1 and shall continue for the term agreed in the contract.

3.3 If the contract period is for an indefinite or for a fixed term, the contract term will be extended by the term specified in the contract unless terminated in writing by either party with a three-months notice prior to the end of the contractual term.

4. Scope of services

4.1 The scope and type of the services to be provided by TÜV Rheinland shall be specified in the contract including any service description or offer submitted by TÜV Rheinland. If the client instructs TÜV Rheinland without receiving a quotation from TÜV Rheinland beforehand, TÜV Rheinland is, in the sole discretion, entitled to accept the order by giving written notice or each acceptance (including notice by electronic means) or by performing the requested work or services.

4.2 The agreed services shall be performed in compliance with the regulations in force at the time the contract is entered into.

4.3 TÜV Rheinland is entitled to determine, in the case it deems necessary, the method and nature of the assessment unless otherwise agreed in writing or if mandatory provisions require a specific procedure to be followed.

4.4 On execution of the work there shall be no circumstances assumption of any guarantee of the correctness, proper quality and working order of either tested or examined parts or of the installation as a whole and to purchasers and/or construction procedures, organizations, laws and applications in accordance with regulations, nor of the systems on which the installation is based. In particular, TÜV Rheinland shall assume no responsibility for the construction, selection of materials and assembly of installations examined, nor for their use and application to a certain case with regulations, unless these questions are expressly covered by the contract.

4.5 In the case of inspection work, TÜV Rheinland shall not be responsible for the accuracy or checking of the safety or operations or safety regulations on which the inspections are based, unless otherwise expressly agreed in writing.

4.6 If mandatory legal regulations and standards or official requirements for the agreed service scope change after conclusion of the contract, with a written notice to the client, TÜV Rheinland shall be entitled to additional remuneration for resulting additional expenses.

4.7 The services to be provided by TÜV Rheinland under the contract are agreed exclusively with the client. A contract of both parties with the services of TÜV Rheinland, as well as mutual invitation or and habitually continuance of the work results (test reports, test results, expert reports, etc.) is not part of the agreed services. This also applies if the client passes on work results etc. in full or in extracts – to third parties in accordance with clause 11.6.

4.8 The client understands and agrees that in order to perform the contract with TÜV Rheinland, the client may need to sign one or more contractor agreements with one or more counties and website page requirements with healthcare third parties, according to such contracting agreements TÜV Rheinland will not assume the corresponding legal liability according to this contract and the direct services actually to be provided by our company in the service scope. If the relevant services are not directly provided by TÜV Rheinland (including but is limited to any testing and certification services to be provided by the testing and certification body), TÜV Rheinland is liable to the client as agent for such relevant services in order to achieve the purpose of the contract, the client hereby agrees that TÜV Rheinland can act as sub-entrust a third party to provide agency services, but TÜV Rheinland shall not bear any responsibility or liabilities for any services to be provided by any third parties (including but not limited to the testing and/or certification services to be performed and/or applied for by our company on behalf of the client to other third testing and/or certification bodies, agencies or accredited by any other third agencies, etc.). Besides, the client shall be liable in accordance with the relevant laws and regulations and the terms under the contract. If the client is required to conduct any annual review/surveillance of the relevant testing and/or certification services and pay all fees/ issue in accordance with the relevant laws and regulations or the testing and certification rules, such fees are not within the scope of the contract, the client shall directly perform the obligation of such annual review/surveillance and pay the corresponding fees. If the client fails to perform such obligations of the annual review/surveillance or fees payment, it may lead to adverse consequences such as failure/ suspending/cancelling the validity of testing and/or certification results, which shall not be borne/liable by TÜV Rheinland.

4.9 For the service content agreed to be the contract, if the client requires TÜV Rheinland to deliver relevant test samples, data, etc. to any overseas laboratory or other places or offices to be designated by the client, TÜV Rheinland shall not take any responsibilities or risks for any problems during such delivery and the transportation process (including but not limited to any loss or damages of the samples and/or the materials, etc.). Besides, the relevant expenses shall be borne by the client.

5. Performance periods/delivery

5.1 The contract shall agree on deliverables or performance are based on estimates of the work involved which are required in line with the details provided by the client. They shall only be binding if they are confirmed as binding by TÜV Rheinland in writing.

5.2 If binding periods of performance have been agreed, these periods shall not commence until the client has submitted all required documents to TÜV Rheinland.

5.3 Articles 5.1 and 5.2 also apply, even without separate approval by the client, to all amendments of agreed periods and/or performance not caused by TÜV Rheinland.

5.4 TÜV Rheinland is not responsible for a delay in performance, in particular if the client has not fulfilled its duties to cooperate in accordance with clauses 6.1 or has not done so in time and, in particular, has not provided TÜV Rheinland with all documents and information required for the performance of the service as specified in the contract.

5.5 If the performance of TÜV Rheinland is delayed due to unforeseeable circumstances such as force majeure, strikes, business disruptions, governmental regulations, transport obstacles, etc., TÜV Rheinland is entitled to postpone performance for a reasonable period of time which corresponds at least to the duration of the hindrance plus any time period which may be required to resume operations.

5.6 If the client is obliged to comply with legal, officially prescribed and/or by the accepted prescribed deadlines, his/her client's responsibility to agree on performance dates with TÜV Rhein and, which enable the client to comply with the legal and/or officially prescribed deadlines. TÜV Rheinland assumes no responsibility in this respect unless TÜV Rheinland has specially agreed in writing specifically liability but ensuring the timeliness is the contractual obligation of TÜV Rhein and.

6. The client's obligation to cooperate

6.1 The client shall guarantee that all cooperation required on its part, its agents or third parties will be provided in good time and duties owed to TÜV Rheinland.

6.2 Design documents, samples, ancillary staff, etc. necessary for performance of the services should be made available free of charge to the client. Moreover, data supplied by the client must be complete and correct in accordance with applicable codes, standards, safety regulations and accident prevention instructions, and the client represents and warrants that:

a) it has required statutory authorizations.

b) the product, service or management system to be certified complies with applicable laws and regulations; and

c) it does not have any illegal and undisclosed purposes or acts of misconduct in terms of international sanctions (e.g. Latest Sanctioned Acts of People's Republic of China).

If the client breaches the aforesaid representations and warranties, TÜV Rheinland is entitled to unilaterally terminate the contract lower without prior notice, and to withdraw the issued testing report/certificate if any.

6.3 The client shall bear any additional cost incurred on account of work having to be redone or being delayed as a result of any breach of its cooperation obligations, whatever the client's proper cooperation from the client. Even where a fixed or maximum price is agreed, TÜV Rhein and shall be entitled to charge extra rates for such additional expense.

7. Fees

7.1 In the case of performance of work not done in writing, when the order is placed, invoicing shall be based on costs actually incurred. If no price is agreed in writing, invoicing shall be made in accordance with the price list of TÜV Rheinland valid at the time the work is carried out.

7.2 Unless otherwise agreed, work shall be invoiced according to the progress of the work.

7.3 Where execution of an order extends over more than one month and the value of the contract or fee agreed is not price exceeds 50,000.00 or more, payment is due in local currency. TÜV Rhein and may demand payments on account or in instalments.

8. Payment terms

8.1 All invoice amounts shall be due for payment within 30 days of the invoice date without deduction on receipt of the invoice. No discounts and rebates shall be granted.

8.2 Payments shall be made to the bank account of TÜV Rheinland as indicated on the invoice, stating the invoice and client numbers.

8.3 In cases of default of payment, TÜV Rheinland shall be entitled to claim default interest at the applicable statutory bank interest rate publicly announced by a reputable commercial bank in the country where TÜV Rheinland is located. At the same time, TÜV Rhein and reserves the right to claim further damages.

8.4 Should the client default in payment of the invoice despite one granted a reasonable grace period, TÜV Rheinland shall be entitled to cancel the contract, withdraw the certificate, claim damages for non-performance and refuse to continue performance of the contract.

8.5 The provisions set forth in article 8.4 shall also apply in cases involving personal stoppage, cessation of payment, commencement of insolvency proceedings against the client's assets or cases in which the commencement of insolvency proceedings has been dismissed due to lack of assets.

8.6 Objections to the invoices of TÜV Rhein and shall be submitted in writing within two weeks of receipt of the invoice.

8.7 TÜV Rheinland shall be entitled to demand appropriate advance payments.

8.8 TÜV Rheinland shall be entitled to raise its fees at the beginning of a month if overheads and/or purchase costs have increased. In this case, TÜV Rheinland shall notify the client in writing of the rise in fees. This notification shall be issued one month prior to the date on which the rise is to take effect and shall constitute notice of changes in fees. If the client does not terminate the contract by the end of the period of notice of changes in fees, the contract is not terminated, the changed fees shall be deemed to have been agreed upon by the time of the expiry of the notice period.

8.9 Only legally established and undisputed claims may be offset against claims by TÜV Rheinland.

9. Withdrawal and termination

9.1 TÜV Rheinland shall have the right at all times to specify an amount due or payable to the client, including claims against third parties, as security for the client's claims and contracts. Agreement on security covers obligations reached with TÜV Rheinland.

10. Acceptance of work

10.1 Any part of the work result ordered which is complete in itself may be presented by TÜV Rheinland for acceptance as an instalment. The client shall be obliged to accept it immediately.

10.2 If no option is resolved or contractually agreed in an individual case, this shall be deemed to have taken place two (2) weeks after completion and handover of the work, unless the client refuses acceptance within this period stating all reasons fundamental basis of contract by TÜV Rheinland.

10.3 The client is not entitled to refuse acceptance due to slight impairment breach of contract by TÜV Rheinland.

10.4 If acceptance is excluded according to the nature of the work carried out by TÜV Rheinland, the completion of the work shall take its place.

10.5 During the follow-audit stage, if the client was unable to make use of the time allowance provided for within the scope of a certification procedure or examination for instance TÜV Rheinland and the certificate is therefore to be withdrawn (e.g. performance of surveillance audits), or if the client cancels or postpones / confirms audit date within two (2) weeks before the agreed date, TÜV Rheinland is entitled to reasonably charge a lump-sum compensation of 10% of the order amount as compensation for expenses. The client reserves the right to prove that the TÜV Rheinland has incurred no / a larger amount over or only / considerably lower damage than the above lump sum.

10.6 In order to be able to determine in a timely manner whether to accept services, TÜV Rheinland shall also be entitled to charge lump-sum damages in the amount of 10% of the order amount as compensation for expenses if the service is not called within one year after the order has been placed. The client reserves the right to prove that TÜV Rheinland has incurred no damage whatsoever or only a considerably lower damage than the above-mentioned lump sum.

11. Confidentiality

11.1 For the purpose of these terms and conditions, "confidential information" means all knowledge, facts, records, documents, invoices, drawings, specifics, information, data, test results, reports, samples, project documents, prices and financial information, customer and supplier information, and marketing techniques and methods, whether or not patentable, that are supplied, transferred or otherwise disclosed by one Party (the "disclosing party") to the other Party (the "receiving party"), in writing or in any form or by any means, whether oral, electronic or otherwise, and is expressly not the data and information collected, collected or otherwise obtained by TÜV Rheinland from personnel and role providers by the client within the scope of the provision of services by TÜV Rheinland. TÜV Rheinland is entitled to use, store and further develop and pass on the data obtained in connection with the provision of services for the purposes of improving their services, improving services and developing the provision of services.

11.2 The disclosing party shall mark all commercial information disclosed in written form as confidential before passing it onto the receiving party. The same applies to confidential information transmitted by e-mail. If confidential information is disclosed orally, the receiving party shall be acknowledged in writing in advance by the disclosing party shall confirm in writing the confidentiality nature of the same information within the working days of oral disclosure. Where the disclosing party fails to do so within the stipulated period, the receiving party shall not have any confidentiality obligations howsoever towards such information. The client shall avoid using any third party partners and/or systems (eg. Wechat, etc.) provided by TÜV Rheinland to send any confidential information to TÜV Rheinland. Instead, the client shall send any confidential information or company email of TÜV Rheinland employees through its company email. If the client suffers from any losses or damages due to any theft or subrogation to the preceding exception of any unauthorized confidential information or data mentioned above, TÜV Rheinland shall not be liable and not any compensation liabilities.

11.3 All confidential information which the disclosing party transmits or otherwise discloses to the receiving party and which is created during performance period by TÜV Rheinland

a) may only be used by the receiving party for the purposes of performing this contract, unless expressly otherwise agreed in writing by the disclosing party;

b) may not be copied, published, duplicated or otherwise disclosed by the receiving party, unless this is necessary for fulfilling the purpose or the contract or TÜV Rheinland is required to pass on confidential information, inspection reports or documentation to the government authorities, individuals or accreditation bodies and in particular for testing but not limited to the measurement and/or indirect processes, certificate maintenance system equipment, measurement, test standards or final requirements provisions of the client's final products and/or certified products, etc. shall be involved in the performance of the contract;

c) must be treated by the receiving party with the same level of confidentiality as the receiving party does to protects own confidential information, but never with a lesser level or confidentiality than that which is reasonably required.

11.4 The receiving party has disclosed any confidential information received from the disclosing party only to those of its employees who need the said data to perform their services assigned to the contract. The receiving party undertakes to obtain these employees to observe the same level of secrecy as set out in this confidentiality clause.

11.5 Information shall not be in the receiving party's possession if that

a) it was generally known at the time of disclosure or has become generally known without violation of this confidentiality clause by the receiving party; or

b) it was disclosed to the receiving party by a third party entitled to disclose the information; or

c) the receiving party already possessed this information prior to disclosure by the disclosing party; or

d) the receiving party developed it itself, irrespective of disclosure by the disclosing party, shall not be deemed to constitute contractual information or a breach of the contractual obligations.

11.6 All confidential information shall remain the property of the disclosing party. The receiving party hereby agrees to immediately (unless all confidential information, including all copies, to the disclosing party, and only at its request, the receiving party, including all confidential information, including all copies, and confirm the destruction of this confidential information to the disclosing party in writing, unless time it is prevented by the disclosing party for further lawful and without special request after termination or expiry of the contract. This does not extend to include reports and certificates prepared for the client solely for the purpose of fulfilling the obligations set out in the contract, which shall remain with the client. However, TÜV Rheinland is entitled to retain the copies of such reports, certificates and confidential information/ items in the same time for passing these reports and certificates to meet Confidence the compliance of its resellers for general documentation purposes required by laws, regulations and the competent courts of working procedures of TÜV Rheinland.

11.7 From the start of the contract and for a period of two years after termination or expiry of the contract, the receiving party shall maintain strict secrecy of all confidential information and shall not disclose this information to any third parties or use it for itself.

12. Copyright and rights of use, publications

12.1 TÜV Rheinland shall retain all exclusive copyrights to the reports, expert opinions/reviews, test reports/results, results, calculations, presentations etc. prepared by TÜV Rheinland, unless otherwise agreed in writing in the contract. TÜV Rheinland grants the client with exemptions TÜV Rheinland is free to publications the right to use the work results for individual or all types of exercises of consent.

12.2 The client receives a simple, limited, non-transferable, non-sublicensable right of use to the contents of the work results produced within the scope of the contract, unless otherwise agreed by the parties in a separate agreement. The client may only use such data, expert reports/opinions, test reports/results, calculations, presentations etc. prepared within the scope of the contract for the contractually agreed purpose.

12.3 The transfer of right of use of the prepared work results regulated in clause 11.2 of the GTCBR in respect to full payment of the remuneration agreed in favour of TÜV Rheinland.

12.4 The client may not modify the reports, expert opinions and documents. The alterations pass on the work results is not unless TÜV Rheinland has given its prior written consent to the partial publishing of work results.

12.5 Any publication or duplication of the work results for advertising purposes or any further use of the work results beyond the scope regulated in clause 11.2, and any violation of the introduction of TÜV Rheinland need the prior written approval of TÜV Rheinland's each individual case. Besides, the client assures that these work use shall comply with relevant applicable laws, regulations and rules (including but not limited to the specific applicable laws, regulations and certification rules, etc.).

12.6 TÜV Rheinland may revoke a once given approval according to clause 11.5 at any time without stating reasons. In this case, the client is obliged to stop the transfer of the work results immediately at his own expense and, as far as possible, to withdraw publications.

12.7 The consent of TÜV Rheinland to publication or duplication of the work results does not entitle the client to use the corporate logos, corporate design or brand/trademarks of TÜV Rheinland.

13. Liability of TÜV Rheinland

13.1 Irrespective of the legal basis, to the fullest extent permitted or applicable law, in the event of a breach of contractual obligations or law, the liability of TÜV Rheinland for all damages, losses and reimbursement of expenses caused by TÜV Rheinland, its legal representatives and/or employees/workers in connection with a duly performed contract with a duly performed fee does not exceed three times the amount of the contractual annually recurring services. We agree and/or fee, and in the case of a contract expressly charged on a time and material basis, a maximum of 20,000 Euro or equivalent amount in local currency, and does not exceed three times the amount of the contractual annually recurring services. In other cases, there shall be no fee for the contractual claim under which the damages or losses have occurred. Notwithstanding the above, in the event that excess are accumulated later by subsequent occurrences, the total and accumulated liability of TÜV Rheinland shall not exceed an amount in local currency, the total and accumulated liability of TÜV Rheinland shall not only extend to and shall not exceed the said 2.5 million Euro or equivalent amount in local currency.

13.2 The limitations of liability set forth in clause 13.1 above shall not apply to damages incurred because caused by malice, intent or gross negligence on the part of TÜV Rheinland or its vicarious agents. Such limitation shall not apply to damages for a personal death, physical injury or illness.

13.3 In cases involving standard terms of contract, TÜV Rheinland will be liable even where minor negligence is involved. For this purpose, a "minor breach" is a breach of a material contractual obligation, the performance of which permits the due performance of the contract, any claim for damages for a Note mental breach of contract shall be limited to the amount of damages reasonably foreseen as a possible consequence of such breach of contract at the time of the breach (reasonably foreseeable damages), unless any of the circumstances described in article 13.2 applies.

13.4 TÜV Rheinland shall not be liable for the acts of the personnel made available by the client to support TÜV Rheinland in the performance of its services under the contract, unless such personnel made available is regarded as vicarious agent of TÜV Rheinland. If TÜV Rheinland is not liable for the acts of the personnel made available for the client under the foregoing provision, the client shall indemnify TÜV Rheinland against any claims made by third parties arising from or in connection with such personnel's acts.

13.5 Unless otherwise contractually agreed in writing, TÜV Rheinland shall only be liable under the contract to the client.

13.6 The limitation periods for claims or damages shall be based on statutory provisions.

13.7 Notwithstanding the above, TÜV Rheinland disclaims the burden of proof to the disadvantage of the client.

14. Expert opinions/reviews

14.1 Where persons on the services provided by TÜV Rheinland experts the role to third parties in dealings with clients or third parties, they perform their compliance with the respective applicable regulations of national and international export control law.

14.2 The performance of a contract with the client is subject to the proviso that there are no obstacles to performance due to international sanctions or embargoes or similar sanctions. In the event of a violation, TÜV Rheinland shall be entitled to terminate the contract with immediate effect and the client shall compensate for the losses incurred thereof by TÜV Rheinland.

15. Data protection notice

The client understands and agrees that TÜV Rheinland processes personal data (including but not limited to personal information) of the client and its related parties (including but not limited to employee or the client) for the purpose of fulfilling the contract. The client confirms that it has obtained the prior consent of the data subject which enables TÜV Rheinland to access, use or process the personal data that the client collected or processed or stored and transferred to TÜV Rheinland. For certain services, we may also process sensitive personal data. TÜV Rhein and will use and process the data in accordance with the relevant laws/ basis. If any personal data has to be disclosed or transferred to any third party or any overseas party outside of the territory in which the personal data was collected, the client also confirms that it has obtained the prior consent of the data subject. TÜV Rheinland will carry out cross-border data transmission and protect the data in compliance with the privacy and personal data security related laws and regulations in China and the local country. TÜV Rheinland will take measures to avoid any leakage, abuse, manipulation, damage or unauthorized access of personal data. The personal data will be deleted immediately as soon as a corresponding reason no retention arises. Data subjects may exercise the following rights: right of information, right of access, right of rectification, right of deletion, right of processing limitation, right of objection, right of data transferability. In addition, persons concerned by the data processing have the right to revoke their consent at any time and exercise in the future, as well as the right to file a complaint with the competent data protection supervisory authority. For further details on the processing of personal data by TÜV Rheinland as the person responsible or contract processor, please refer to the respective data protection information. You can contact the Group Data Protection Officer of TÜV Rheinland by email at dataprotection@tuv.com or by post at the following address: TÜV Rheinland AG, c/o Group Data Protection Officer, Am Grauen Stein, 51105 Cologne, Germany.

16. Retention of documents

16.1 The last samples submitted by the client to TÜV Rheinland for testing will be stopped following testing or will be returned to the client at the client's expense. The only exceptions are test samples, which are placed in storage on the basis of statutory regulations or of another agreement with the client.

16.2 Charges apply if the test samples are stored at the premises of TÜV Rheinland. The cost of packing a subsequent date storage will be discussed on the case by case basis.

16.3 If reference samples or documentations are given to the client to be placed in storage at their premises, the reference samples or documentations remain the property of TÜV Rheinland. Upon receipt promptly and free of charge, if the client, in response to such a request, is incapable of making available the reference samples and the documentation, any liability claims for material and immaterial damages resulting from this reason for testing and certification marks should continue to be client against TÜV Rheinland shall be voided.

16.4 The retention period for the documentation shall be 10 (ten) years after the expiry of the test mark certificates or shall meet the applicable legal requirements for the IECEE certificates of conformity and of mark certificates.

16.5 If the costs of the installation and dismantling of the test samples for storage at the client's premises are incurred by the client, TÜV Rheinland will be liable for no more than client samples or reference samples from manufacturers or warehouses of TÜV Rheinland only in case of gross negligence.

16. Term/duration of it is so stated

16.1 Notwithstanding clause 3.1 of the GTCBR, TÜV Rheinland and the client are entitled to terminate the contract in its entirety or, in the case of services combined in one contract, each of the combined parts of the contract individually and independently of the combination of the remaining services with six (6) months' notice to the end of the contractually agreed term. The notice period shall be extended to six (6) years in case TÜV Rheinland is prevented from performing the services due to a loss or a suspension of its accreditation or notification.

16.2 For good cause, TÜV Rheinland may terminate giving a written notice to the client to terminate the contract without bearing any liabilities are the client shall pay the relevant service fees for the services provided by TÜV Rheinland due to the termination date of the contract. The aforesaid good cause shall include but not limited to the following:

a) the client does not immediately notify TÜV Rheinland or changes in the organizational structure which are relevant for certification or signs of such changes;

b) the client misuses the certificate or certification mark or uses it in violation of the contract;

c) in the event of several consecutive delays in payment (at least three times);

d) a substantial deterioration of the financial circumstances of the client occurs and as a result the payment claims of TÜV Rheinland under the contract are considerably endangered and TÜV Rheinland cannot reasonably be expected to perform the contractual relationship;

e) in the event of any serious misrepresentation, be it by intentional fraud or grossly negligent behavior of the managers, employees or agents of the client;

f) TÜV Rheinland, for reasons beyond its control, temporarily or finally no able or entitled to continue or maintain the performance of the services, e.g. in case of new measures, government interference, sanctions, loss of accreditation or notification or others;

g) if the court-in question involved in the trade conflict or for specific service project in the contract over six terms, the client shall not terminate or cancel the contractual relationship;

h) in the event of any serious misrepresentation, be it by intentional fraud or grossly negligent behavior of the managers, employees or agents of the client.

16.3 In the event of a violation with written notice duly TÜV Rheinland for good cause, TÜV Rheinland shall be entitled to a lump-sum claim for damages against the client if the conditions of a claim for damages exist. In this case, the client shall pay, inter alia, the remuneration to be paid until the end of the fixed contract term as lump-sum compensation. The client reserves the right to prove that no damage or a considerably lower damage has occurred. TÜV Rheinland reserves the right to pursue considerably higher damages in individual cases.

16.4 TÜV Rheinland is also entitled to terminate the contract with written notice if the client has not been able to make use of the time allowance for auditing / service provision provided by TÜV Rheinland within the scope of a certification procedure and the certificate therefore has to be withdrawn, for example during the performance of monitoring audits. Clause 16.1 applies accordingly.

17. Force Majeure

17.1 "Force Majeure" is each the occurrence of an event or circumstance that prevents or impedes a Party from performing one or more of the contractual obligations under the contract, if and to the extent that that party proves: (a) that such impediment is beyond the reasonable control of and (b) that it could not reasonably have been foreseen at the time of the conclusion of the contract; and (c) that the effects of the impediment could not reasonably have been avoided or overcome by the affected Party.

17.2 In the absence of proof to the contrary, the following events affecting a Party shall be presumed to fulfil conditions (a) and (b) under paragraph 1 of this Clause: (i) war (whether declared or not), hostilities, invasion, act of foreign enemies, extensive military mobilisation; (ii) civil war, riot, rebellion and revolution, military or usurped power, insurrection, act of terrorism, sabotage or piracy; (iii) currency and trade restrictions, embargo, sanction; (iv) act of authority whether lawful or unlawful, compliance with any law or governmental order, expropriation, seizure of works, requisition, nationalisation; (v) plague, epidemic, natural disaster or extreme natural event; (vi) explosion, fire, destruction of equipment, prolonged breakdown of transport, telecommunication, information system or energy; (vii) general labor disturbance such as conflict, strike and lock-out, picketing, occupation of factories and premises.

17.3 The Party seeking relief in relying this Clause by reason thereof from its duty to perform its obligations under the contract and from any liability in damages or from any other contractual remedy for breach of contract, from the time at which the impediment causes its performance to be prevented or hindered in such a way that it cannot perform them without delay. If notice thereof is not given within such delay, the party's entitlement on the basis of which notice thereof reaches the other party. Where the extent or the impediment of event involved is irrelevant, the above consequences shall apply only as long as the impediment invokes. Besides, performance by the affected Party. Where the duration of the impediment event invoked for the effect substantially impairs the contractual parties or where they were reasonably entitled to expect under the contract, either Party shall be right to terminate the contract by notice in writing with a reasonable period to the other Party. Unless otherwise agreed, the Parties expressly agree that the contract may be terminated by either Party if the duration of the impediment exceeds 120 days.

18. Miscellaneous

18.1 The Parties are bound to perform their contractual duties even if events have rendered performance more onerous than could reasonably have been anticipated at the time of the conclusion of the contract.

18.2 It shall be the responsibility of the Client, where a Force Majeure (as defined in clause 17 of this Clause) event or circumstance has become or is likely to become an obstacle to the performance of its contractual duties (a) and (b) under paragraph 1 of this Clause, the Client shall:

(a) the continued performance of its contractual duties has become or is likely to become due to an event beyond the reasonable control which it could not reasonably have been expected to have taken into account at the time of the conclusion of the contract; and

(b) it could not reasonably have avoided or overcome the event or its consequences, the Parties are bound, within a reasonable time of the Force Majeure Clause, to negotiate alternative contractual terms which reasonably allow to overcome the consequences of the event.

18.3 Where Clause 18.2 applies, but where the Parties have been unable to agree alternative contractual terms as provided in that paragraph, the Party invoking this Clause is entitled to terminate the contract, but cannot request adaptation by the judge or arbitrator without the agreement of the other Party.

19. Partial invalidity, written form, place of jurisdiction and dispute resolution

19.1 All amendments and supplements must be in writing in order to be effective. This also applies to amendments and supplements to this clause 17.1.

19.2 Should one or more provisions of these terms and conditions be or become invalid, this shall not affect the remaining provisions. The contracting parties shall replace the invalid provision with a legally valid provision that comes as closest to the commercial intent of the provision in legal and commercial terms.

19.3 Unless otherwise stipulated in the contract, the governing law of the contractual these terms and conditions shall be chosen in writing the terms as below:

a) if TÜV Rheinland in question is legally registered and existing in the Peoples Republic of China, the contracting parties hereby agree that the contractual these terms and conditions shall be governed by the laws of the Peoples Republic of China;

b) if TÜV Rheinland in question is legally registered and existing in Taiwan, the contracting parties hereby agree that the contractual these terms and conditions shall be governed by the laws of Taiwan.

c) in this clause 19.3 in question is legally registered and existing in Hong Kong, the contracting parties hereby agree that the contractual these terms and conditions shall be governed by the laws of Hong Kong.

19.4 Any dispute in connection with the contract and these terms and conditions or the execution thereof shall be settled friendly through negotiations.

Unless otherwise stipulated in the contract, if no settlement or no agreement in respect of the extension of the negotiation period can be reached within two months of the arising of the dispute, the dispute shall be settled:

a) in the case of TÜV Rheinland in question being legally registered and existing in the People's Republic of China, by China International Economic and Trade Arbitration Commission (CIETAC) to be submitted for arbitration under the arbitration Rules of CIETAC in force when the application is submitted. The arbitration shall take place in Beijing, Shanghai, Shenzhen or Chongqing as appropriately chosen by the claiming party.

b) in the case of TÜV Rheinland in question being legally registered and existing in Taiwan, to Chinese Arbitration Association, Taipei to be arbitrated in accordance with its face current arbitral application. The arbitration shall take place in Taipei.

c) in the case of TÜV Rheinland being legally registered and existing in Hong Kong, to Hong Kong International Arbitration Centre (HKIAC) to be settled by arbitration under the HKIAC Administered Arbitration Rules in force when the notice or arbitration is submitted in accordance with these rules. The arbitration shall take place in Hong Kong.

The decision of the relevant arbitration tribunal shall be final and binding on both parties. The arbitration fee shall be borne by the losing party.

Appendix D: Average monthly consumption of Maintenance & Operations Chemicals

Sr.no.	Chemical Description	monthly consumption	UOM
1	Hydraulic Oil 68	10	litres
2	Grease EPO	1	kg
3	Engine Oil 15W40	5	litres
4	Diesel	2400	litres
5	Tarpene oil	600	litres
6	Grease L32N	10	kg
7	Mobil Oil 40	20	litres
8	Transformer Oil (Paraffin based) 15-335	5	litres
9	Air Compressor Oil - 46	5	litres
10	Cutting Oil - 222	50	litres
11	Gear Oil - 90	5	kg

Housekeeping Stock as on		Sep-23 Stock	Oct-23 Stock	Nov-23 Stock	Dec-23 Stock	Average Consumption
sS.No.	Liquid Items	Qty (Ltr.)	Qty (Ltr.)	Qty (Ltr.)	Qty (Ltr.)	
1	Taski R-1	8	10	8	7	10
2	Taski R-2	10	8	10	10	10
3	Taski R-3	10	10	10	8	10
4	Taski R-5	8	10	10	5	10
5	Taski R-6	10	7	10	8	10
6	Taski R-7	3	7	3	5	5
7	Taski R-9	1	1	2	1	2
8	Taski D-7	1	1	1	1	1
9	Taski '101	1	2	1	1	2
10	Taski '103	2	2	2	2	2
11	Phenyl	8	8	10	10	10
12	Handwash Soap (Normal)	15	15	15	15	15
13	Handwash Soap (Dittol)	3	2	3	3	3
14	Odonil	8	8	8	8	8 Pcs
15	Naphthalene balls	5	2	2	2	3 Pkt