

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

*Sample information is provided by customer. Test result is drawn according to the kind and extent of tests performed.
This test report relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.
"Decision Rule" document announced in our website (<https://www.tuv.com/landingpage/en/qm-gcn/>) describes the statement of conformity and its rule of enforcement for test results are applicable throughout this test report.*

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.

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.

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

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.

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

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 ($\mu\text{g}/\text{m}^3$)	
		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 ($< 1 \mu\text{g}/\text{m}^3$)

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 ($\mu\text{g}/\text{m}^3$)	
		72 h	168 h
Formaldehyde	50-00-0	5	n.d.
Acetaldehyde	75-07-0	n.d.	n.d.

Note:n.d. = not detected ($< 5 \mu\text{g}/\text{m}^3$)

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

Substance	CAS no.	Emission factor ($\mu\text{g}/\text{m}^2\text{h}$)	
		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 ($\mu\text{mol}/\text{m}^2\text{h}$)	
		72h	168 h
Formaldehyde	50-00-0	0.34	--
Acetaldehyde	75-07-0	--	--
Total aldehydes	--	0.34	--

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 ($\mu\text{g}/\text{m}^2\text{h}$)
		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 ($\mu\text{g}/\text{m}^2\text{h}$)
		a	b	
Formaldehyde	50-00-0	--	--	--
Acetaldehyde	75-07-0	--	--	--
Total aldehydes	--	--	--	--

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 ($\mu\text{g}/\text{m}^2\text{hr}$)	42.3	85.1	--	Pass
TVOC ($\mu\text{g}/\text{m}^2\text{hr}$)	345	694	34.27	Pass
Total Aldehydes ($\mu\text{mol}/\text{m}^2\text{hr}$)	2.8	5.7	--	Pass
4-Phenylcyclohexene ($\mu\text{g}/\text{m}^2\text{hr}$)	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 ($\mu\text{g}/\text{m}^2\text{h}$)	Private Office Maximum Allowable Emission Factor ($\mu\text{g}/\text{m}^2\text{h}$)	Calculated emission factor at 336h ($\mu\text{g}/\text{m}^2\text{h}$)	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-ethylidihydro-	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

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 ($\mu\text{g}/\text{m}^2\text{h}$)	Allowable Concentration ($\mu\text{g}/\text{m}^3$)	Open-plan workstation estimated concentration ($\mu\text{g}/\text{m}^3$)	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-ethylidihydro-	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 ($\mu\text{g}/\text{m}^2\text{h}$)	Private Office Workstation Emission Factor ($\mu\text{g}/\text{m}^2\text{h}$)	Calculated emission factor at 336h ($\mu\text{g}/\text{m}^2\text{h}$)	Evaluation
Formaldehyde	50-00-0	6.2	12.5	--	Pass

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

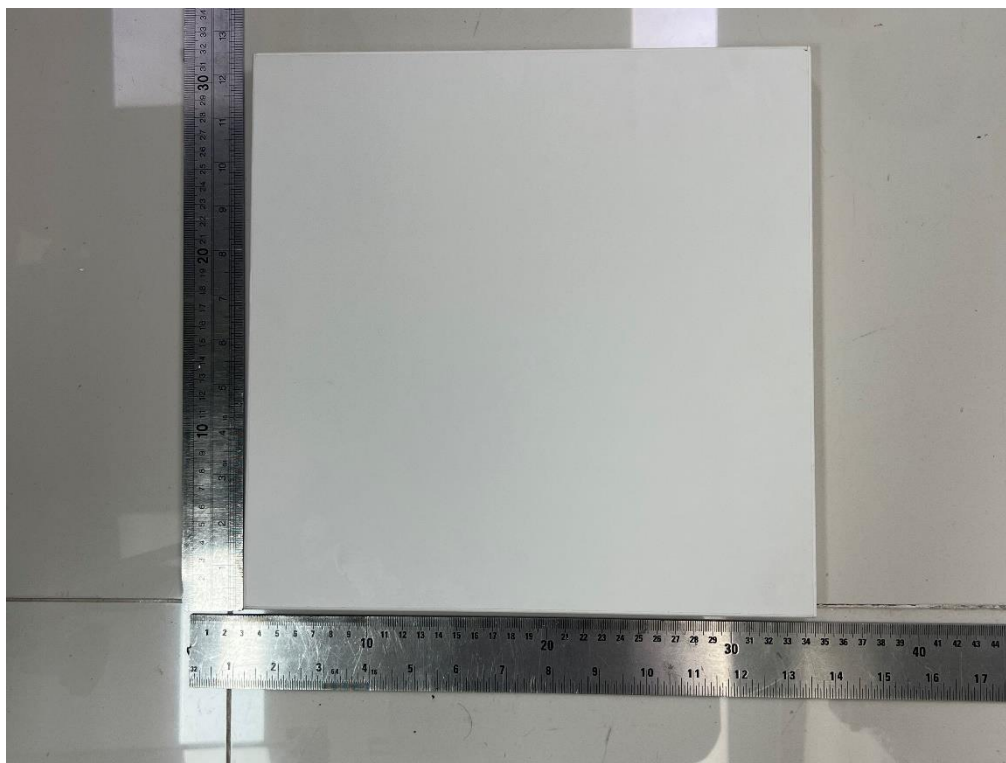
Hong Kong, 2024-04-22

TÜV Rheinland Hong Kong Ltd.



Gary Choi
Project Executive

7. Photo



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

8. Chain of Custody

TUV Rheinland Hong Kong Ltd
Member of TÜV Rheinland Group in Greater China
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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

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。

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Order No: 158287816
Reviewed by (date):

Please ship sample to/ 請把樣品寄送到:

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香港荃灣半山街 10-16 號富華工業大廈 3 樓 (收辦部)

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	9823766119
Fax no./ 傳真號碼			
Your reference/ 您的參考			

Test Method(s) ordered:

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

Further information - Please fill in only if necessary

Type of Chamber: Mid-scale <input type="checkbox"/> Small-scale <input type="checkbox"/>	Length of testing: 24h <input type="checkbox"/> 72h <input type="checkbox"/> 168h <input checked="" type="checkbox"/> 336h <input type="checkbox"/> Other:	Reporting of results: Emission Factors only <input type="checkbox"/> Room concentrations modeling <input type="checkbox"/>
Other test/information:		
Report format:	PDF <input type="checkbox"/>	Printed <input type="checkbox"/> Printed & PDF <input checked="" type="checkbox"/>

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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

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。

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

Product Commercial Name:	Curvivo, Livo, Deskpro, XBench, Proceed, Sleek, Trio, Optima, Fenix Series, Adaptable	Product Commercial Part No.:	AFCDESK
Product Dimensions: (height x width x 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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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 ("GTBC") 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"). TÜV Rheinland in Greater China hereof refers to Mainland China, Hong Kong and Taiwan. The client hereof includes:
- (i) a natural person capable to form legally binding contracts under the applicable laws who concludes the contract not for the purpose of a daily use;
- (ii) 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, deliveries and similar services as well as advisory services and other secondary obligations provided within the scope of contract performance.
- 1.3 Any standard terms and conditions of the client of any nature shall not apply and shall hereby be expressly excluded. No standard contract, no 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, this GTBC 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. Coming into effect and duration of contracts

- 3.1 The contract shall come into effect for the agreed terms upon the quotation letter of TÜV Rheinland or a separate contractual document being signed by both contracting parties, or upon the works requested by the client being carried out by TÜV Rheinland. If the client instructs TÜV Rheinland without receiving a quotation from TÜV Rheinland (quotation), TÜV Rheinland is, in its sole discretion, entitled to accept the order by giving written notice of such acceptance (including notice sent via electronic means) or by performing the requested services.
- 3.2 The contract term starts upon the coming into effect of the contract in accordance with article 3.1 and shall continue for the term agreed in the contract.
- 3.3 If the contract provides for an extension of the contract term, the contract will be extended by the term provided for in the contract duly organized in writing by either party with a three-month 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 contractually agreed service scope of TÜV Rheinland by both parties. If no such separate service scope of TÜV Rheinland exists, then the written confirmation of order by TÜV Rheinland shall be decisive for the service to be provided. The scope of the service shall be beyond the scope of the service description (e.g. checking the correctness and functionality of products, processes, installations, organizations not listed in the service description, as well as the intended use and application of such) or provided for their use and application in accordance with regulations, unless these questions are expressly covered by the contract.
- 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 its sole discretion, 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 simultaneous assumption of any guarantee of the correctness (proper quality) and working order of either tested or examined parts nor of the installation as a whole and no guarantee of the correctness of the testing and the application and application 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 in accordance 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 programmes 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 shall be agreed exclusively with the client. A contract of third parties with the services of TÜV Rheinland, as well as making available of and justifying confirmation in the work results (test reports, test results, expert reports, etc.) is not part of the agreed services. This also applies for all relevant services on work results - in full or in extracts - to third parties in accordance with clause 11.4.
- 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 contracts/agreements with almost third parties and establish legal relationships with those third parties (ies) according to such contracts/agreements. TÜV Rheinland will merely bear the corresponding legal liability according to this contract and the client will be responsible for the legal consequences of such service. If the relevant services are not directly provided by TÜV Rheinland (including but not limited to any testing and certification services to be provided by third testing and certification bodies), TÜV Rheinland shall not be responsible for the legal consequences of such services. In order to achieve the purpose of the contract, the client hereby agrees that TÜV Rheinland can also sub-entrust to a third party to provide agency services, but TÜV Rheinland shall not bear any responsibility and/or risk for any services provided by any third parties (including but not limited to the testing and/or certification services to be entrusted and/or applied for by our company on behalf of the client to other third testing and/or certification bodies, agency services provided by any other third party for the services of TÜV Rheinland in accordance with the relevant laws and regulations and/or the terms under the contract. If the client is required to conduct any annual review/surveillance of the relevant testing and/or certification service results and pay additional fees to TÜV Rheinland for the relevant testing and/or certification services, such fees are not within the scope of the contract price, the client shall timely perform the obligation of such annual review/surveillance and pay the corresponding fees. If the client fails to perform such obligation of annual review/surveillance or fees payment, it may lead to adverse consequences such as failure/suspension/cancellation/invalidity of testing and/or certification results, which shall not be compensable by TÜV Rheinland.
- 4.9 For the service contract agreed in the contract, if the client requires TÜV Rheinland to deliver relevant test samples, data, etc. to any overseas laboratory or other places or sites 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 freight fees shall be borne by the client.

5. Performance period/dates

- 5.1 The contractually agreed period/dates of performance are based on estimates of the work involved which are prepared in line with the detailed information of the client. They shall only be binding if being 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 in writing.
- 5.3 Articles 5.1 and 5.2 also apply, even without express approval by the client, to all extensions of agreed period/dates of 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 his duties to cooperate in accordance with clause 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 performance.
- 5.6 If the client is obliged to comply with legal, officially prescribed and/or by the accreditord prescribed deadlines, it is the client's responsibility to agree on performance dates with TÜV Rheinland, which enable the client to comply with the legal and/or officially prescribed deadlines. TÜV Rheinland assumes no responsibility for delays in performance, in particular if the client expressly agrees in writing specifically stating that ensuring the deadlines is the contractual obligation of TÜV Rheinland.

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 at no cost to TÜV Rheinland.
- 6.2 Design documents and suggestions, as well as all information and data required for the services shall be made available free of charge by the client. Moreover, collaborative action of the client must be undertaken in accordance with legal provisions, standards, safety regulations and accident prevention instructions. And the client represents and warrants that:
- a) it has required statutory qualifications;
- b) the product, service or management system to be certified complies with applicable laws and regulations; and
- c) it doesn't have any illegal and dishonest behaviours or is not included in the list of Enterprises with Serious Illegal and Dishonest Acts of People's Republic of China.
- If the client breaches the aforesaid representations and warranties, TÜV Rheinland is entitled to immediately terminate the contract/order without prior notice; and (i) withdraw the issued testing report/certificates 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 late, incorrect or incomplete information provided by or lack of proper cooperation from the client. Even where a fixed or maximum price is agreed, TÜV Rheinland shall be entitled to charge extra fees for such additional expense.

7. Prices

- 7.1 If the scope of performance is not laid down 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 of performance.
- 7.2 Unless otherwise agreed, work shall be invoiced according to the progress of the work.
- 7.3 If the execution of an order takes over 12 months or more than one month and the contract or the agreed fixed price exceeds €25,000 or its equivalent value in local currency, TÜV Rheinland may demand payments on account or on 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 short term loan interest rate published by the People's Bank of China at the central bank in the country where TÜV Rheinland is located. At the same time, TÜV Rheinland reserves the right to claim further damages.
- 8.4 Should the client fail to pay the invoice despite being 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 returned checks, 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 Rheinland 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. The performance of a contract with TÜV Rheinland shall be unaffected by the rise in fees in fees shall come into effect (period of notice of changes in fees). If the rise in fees remains under 5% per contractual year, the client shall not have the right to terminate the contract. If the rise in fees exceeds 5% per contractual year, the client shall have the right to terminate the contract by giving written notice of changes in fees. If 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.

- 8.10 TÜV Rheinland shall have the right at all times to settle any amount due or payable by the client, including but not limited to claims against any third party, by the client under any contracts, agreements and/or orders/quotations reached with TÜV Rheinland.

9. Acceptance of work

- 9.1 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.
- 9.2 If acceptance is required 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 releases acceptance within this period stating at least one fundamental breach of contract by TÜV Rheinland.
- 9.3 The client is not entitled to refuse acceptance due to insignificant breach of contract by TÜV Rheinland.
- 9.4 If acceptance is excluded according to the nature of the work performance of TÜV Rheinland, the completion of the work shall take its place.
- 9.5 During the Follow-Up stage, if the client was unable to make use of the time windows provided for within the scope of a certification procedure for auditing performance by TÜV Rheinland and the certificate is therefore to be issued or withheld (e.g. in the case of surveillance audits), or if the client cancels or postpones a confirmed audit date within two (2) weeks before the agreed date, TÜV Rheinland is entitled to immediately charge a lump-sum compensation of 10% of the order amount as compensation for the time lost. If the client does not intend to prove that the TÜV Rheinland has incurred no damage whatsoever or only a considerably lower damage than the above lump sum.
- 9.6 Insofar as the client has undertaken in the contract 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 the TÜV Rheinland has incurred no damage whatsoever or only a considerably lower damage than the above mentioned lump sum.

10. Confidentiality

- 10.1 For the purpose of these terms and conditions, "confidential information" means all know-how, trade secrets, documents, images, drawings, expertise, information, data, test results, reports, samples, project documents, pricing and cost information, know-how, know-how, know-how, information, and marketing techniques and materials, tangible or intangible, that are supplied, transferred or otherwise disclosed by one Party (the "disclosing party") to the other Party (the "receiving party"), in writing or orally, and which, if disclosed, the receiving party is expressly not to disclose and know-how collected, compiled or otherwise obtained by TÜV Rheinland (non-personal and not proprietary to the client) within the scope of the provision of services by TÜV Rheinland. TÜV Rheinland shall not be obliged to develop and pass on the data obtained in connection with the provision of services for the purposes of developing new services, improving services and analysing the provision of services.
- 10.2 The disclosing party shall mark all confidential information disclosed in written form as confidential before passing it onto the receiving party. The same applies to confidential information transmitted by email. If the content of the information is not confidentially marked, the receiving party shall be appropriately informed in advance and the disclosing party shall confirm in writing the confidentiality nature of the information within five working days of oral disclosure. Where the disclosing party fails to inform the receiving party in writing of the confidentiality nature of the information, the receiving party shall not be bound by the confidentiality obligations hereunder towards such information. The client shall send any confidentiality obligations hereunder towards such information. The client shall send any confidentiality information to company email of TÜV Rheinland employees through its company email. If the client suffers from any losses or damages due to any theft or leakage to be caused by the disclosing party or the receiving party, TÜV Rheinland shall not be liable for any damages or losses. TÜV Rheinland shall be waived for any compensation liabilities mentioned above.
- 10.3 All confidential information which the disclosing party transmits or otherwise discloses to the receiving party and which is created during performance of work by TÜV Rheinland:
- a) may only be used by the receiving party for the purposes of performing the contract, unless expressly otherwise agreed in writing by the disclosing party;
- b) may not be copied, disclosed or otherwise disclosed by the receiving party, unless this is necessary for fulfilling the purpose of the contract or TÜV Rheinland is required to perform the contract; confidential information, inspection reports or documentation to the government authorities, judicial court, accreditation bodies or third parties, or to the client, or to the relevant direct and/or indirect proposed purchasers, vehicle manufacturers, whole equipment manufacturers, test standards or test requirements providers of the client's test products and/or certified products and certificates prepared for the client solely for the purpose of fulfilling the obligations under the contract with the same level of confidentiality as the receiving party uses to protect its own confidential information, but never with a lesser level of confidentiality than that which the disclosing party uses to protect its own confidential information;
- 10.4 The receiving party may disclose any confidential information received from the disclosing party only to those of its employees who need this information to perform the services required for the contract. The receiving party shall ensure that its employees to observe the same level of secrecy as set forth in this confidentiality clause.
- 10.5 Information for which the receiving party can furnish proof that:
- a) was generally known at the time of disclosure or has become general knowledge without violation of this confidentiality clause;
- b) was disclosed to the receiving party by a third party entitled to disclose this information; or
- c) the receiving party already possessed this information prior to disclosure by the disclosing party;
- 10.6 The receiving party developed it itself, irrespective of disclosure by the disclosing party, shall not be deemed to constitute "confidential information" as defined in this confidentiality clause.
- 10.7 All confidential information shall remain the property of the disclosing party. The receiving party hereby agrees to immediately (i) return all confidential information, including all copies, to the disclosing party, and (ii) on request by the disclosing party, to destroy all confidential information, including all copies, and confirm the destruction of this confidential information to the disclosing party in writing, at any time if so requested by the disclosing party but at the latest 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 under the contract, which shall remain with the client. However, TÜV Rheinland is entitled to make file copies of such reports, certificates and confidential information for the basis for preparing these reports and certificates.
- 10.8 From the start of the contract and for a period of three 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.

11. Copyrights and rights of use, publications

- 11.1 TÜV Rheinland shall retain all exclusive copyrights in the reports, expert reports/opinions, test reports/results, results, calculations, presentations etc. prepared by TÜV Rheinland, unless otherwise agreed by the parties in a separate agreement. If the client requests, TÜV Rheinland is free to grant others the right to use the work results for individual or all types of use ("right of use").
- 11.2 The client receives a simple, unlimited, 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 reports, expert reports/opinions, results, calculations, presentations etc. prepared within the scope of the contract for the contractually agreed purpose.
- 11.3 The transfer of right of use of the generated work results regulated in clause 11.2. of the GTBC is subject to full payment of the remuneration agreed in favour of TÜV Rheinland.
- 11.4 The client may use work results only complete and unshortened. The client may only pass on the work results in full unless TÜV Rheinland has given its prior written consent to the partial passing on of work results.
- 11.5 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 quotation of the introduction of TÜV Rheinland need the prior written approval of TÜV Rheinland in each individual case. Besides, the client ensures that the aforesaid use shall comply with relevant applicable laws, regulations and relevant rules (including but not limited to specific applicable testing and certification rules, etc.).
- 11.6 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 and to prevent its own personnel and/or employees from further use of the work results.
- 11.7 The consent of TÜV Rheinland to publication or duplication of the work results does not entitle the client to use the corporate logo, corporate design or test/certification mark of TÜV Rheinland.

12. Liability of TÜV Rheinland

- 12.1 Irrespective of the legal basis, to the fullest extent permitted by applicable law, in the event of a breach of contractual obligations or tortious liability of TÜV Rheinland for damages, losses and reimbursement of expenses caused by TÜV Rheinland, its legal representatives and/or employees shall be limited to: (i) in the case of a contract with a fixed overall fee, three times the overall fee for the entire contract; (ii) in the case of a contract with a variable fee, three times the agreed annual fee; (iii) 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 (iv) in the case of a framework agreement that provides for the possibility of placing individual orders, three times the fee for the individual order under which the damages or losses have occurred. Notwithstanding the above, in the event that the total and accumulated liability calculated according to the foregoing provisions exceeds 2.5 Million Euro or equivalent amount in local currency, the total and accumulated liability of TÜV Rheinland shall be only limited to and shall not exceed the said 2.5 Million Euro or equivalent amount in local currency.
- 12.2 The limitation of liability according to article 12.1 above shall not apply to damages and/or losses 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 person's death, physical injury or illness.
- 12.3 In cases involving a fundamental breach of contract, TÜV Rheinland will be liable even where minor negligence is involved. For this purpose, a "fundamental breach of contract" means a contractual obligation, the performance of which permits the due performance of the contract. Any claim for damages for a fundamental breach of contract shall be limited to the amount of damages reasonably foreseeable as a possible consequence of a contract at the time of the breach (reasonably foreseeable damages), unless any of the circumstances described in article 12.2 applies.
- 12.4 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 by the client under the contract, provision, the client shall indemnify TÜV Rheinland against any claims made by third parties arising from or in connection with such personnel's acts.
- 12.5 Unless otherwise agreed in writing, TÜV Rheinland shall only be liable under the contract to the client.
- 12.6 The limitation periods for claims for damages shall be based on statutory provisions.
- 12.7 None of the provisions of this article 12 changes the burden of proof to the disadvantage of the client.

13. Export control

- 13.1 When passing on the services provided by TÜV Rheinland or parts thereof to third parties in Greater China or other regions, the client must comply with the respectively applicable regulations of national and international export control law.
- 13.2 The client understands and agrees that TÜV Rheinland is not bound to the provision that there are no obstacles to performance due to national or international foreign trade legislations or embargos and/or 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.

14. 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 the supplier of the client) for the purpose of fulfilling this contract. The client confirms

that it has obtained the prior consent of the data subject, which entitles TÜV Rheinland to access to, use or process the personal data of the data subject collected, processed by itself and transferred to TÜV Rheinland. For certain services, we may also process sensitive personal data. TÜV Rheinland will use and process the data in accordance with the relevant legal basis. If any personal data has to be disclosed or transferred to any third party or any overseas party outside of the district 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 processing of the data in compliance with the privacy and personal data security related laws and regulations in China and the local countries. TÜV Rheinland will take measures to avoid any leakage, abuse, manipulation, damage or unauthorized access of personal data. The personal data shall be deleted immediately as soon as a corresponding response for deletion arises. Data subjects may exercise the following rights: right of information, right of decision, 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 with effect for 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 e-mail at dataprotection@tvr.com or by post at the following address: TÜV Rheinland AG, c/o Group Data Protection Officer, Am Grauen Stein, 51105 Cologne, Germany.

15. Retention of test material and documentation

- 15.1 The test samples submitted by the client to TÜV Rheinland for testing will be scrapped 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.
- 15.2 Charges apply if the test samples are stored at the premises of TÜV Rheinland. The cost of placing a test sample into storage will be disclosed to the client in the quotation.
- 15.3 If reference samples or documentations are given to the client to be placed in storage at their premises, the reference samples or documentations must be made available to TÜV Rheinland upon request promptly and free of charge. If the client, in response to such a request, is incapable of making available the relevant samples and/or the contractual relationship, claims for material and pecuniary damage resulting from the respective testing and certification that is brought forward by the client against TÜV Rheinland shall be voided.
- 15.4 The retention period for the documentations shall be 10 (ten) years after the expiry of the test mark certificates or shall meet the applicable legal requirements for EUVEE certificates of conformity and QS mark certificates.
- 15.57 The costs of the handover and dispatch of the test samples for storage on the client's premises are borne by the client. TÜV Rheinland will be liable for the loss of test samples or reference samples from the laboratories or warehouses of TÜV Rheinland only in case of gross negligence.

16. Termination of the contract

- 16.1 Notwithstanding clause 3.3 of the GTBC, TÜV Rheinland and the client are entitled to terminate the contract in its entirety if, in the case of services combined in one contract, each of the combined parts of the contract individually and independently of the continuation of the remaining services with six (6) months' notice to the end of the contractually agreed term. The notice period shall be shortened to six (6) weeks 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 consider giving a written notice to the client to terminate the contract if the client:
- a) does not comply with the conditions within the company which are relevant for certification or signs of such changes;
- b) the client misses the certificate or certification mark or uses it in violation of the contract;
- c) the client delays or prevents the delivery of the test samples or reference samples;
- 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 complete the contractual relationship;
- e) in the event of any serious misrepresentation, be it by intentional fraud or grossly negligent behavior of the client, managers, employees or agents of the client;
- f) the client delays or prevents the delivery of the test samples or reference samples or fails to make or, in the event of a breach of the contract, to continue or finalize the performance of the service, e.g. in case of force majeure, government interference, sanctions, loss of accreditation or notification, or other.
- 16.3 If the court or arbitration body in the whole or in part of the contract in writing in the contract does not belong to the insurance coverage applicable to TÜV Rheinland, and TÜV Rheinland believes that there is a risk or some risks beyond its control to continue to perform the contract.
- 16.3 In the event of termination with written notice by TÜV Rheinland for good cause, TÜV Rheinland shall be entitled to a lump-sum claim for damages against the client if the conditions of the contract for damages under the contract are met. The client shall be obliged to pay the lump-sum claim for damages against the client if the client reserves the right to prove that there is no damage or a considerably lower damage. TÜV Rheinland reserves the right to prove a considerably higher damage in individual cases.
- 16.4 If the client also enters into a contract with a third party for the same service as the client has not been able to make use of the time windows 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 16.3 applies accordingly.

17. Force Majeure

- 17.1 "Force Majeure" means the occurrence of an event or circumstance that prevents or impedes a Party from performing one or more of its contractual obligations under the contract, if and to the extent that that Party proves: (a) that such impediment is beyond its reasonable control; (b) that it could not reasonably have been prevented or overcome 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 mobilization; (ii) civil war, riot, rebellion and revolution, military or usurped power, insurrection, act of terrorism, sabotage or piracy; (iii) currency and trade restriction, embargo, sanction; (iv) act of authority whether lawful or unlawful, compliance with any law or governmental order, expropriation, seizure of works, requisition, nationalization; (v) epidemic, pandemic, natural disaster or extreme natural event; (vi) explosion, fire, destruction of equipment, prolonged break-down of transport, telecommunication, information system or energy; (vii) general labour disturbance such as boycott, strike and lock-out, go-slow, occupation of factories and premises.
- 17.3 The Party substantially invoking this Clause is relieved 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 inability to perform, provided that the notice thereof is given without delay. If notice thereof is not given without delay, the relief is effective from the time at which notice thereof reaches the other Party. Where the effect of the impediment or event invoked is temporary, the above consequences shall apply only as long as the impediment invoked impedes performance by the affected Party. Where the duration of the impediment invoked has the effect of substantially depriving the contracting Parties of what they were reasonably entitled to expect under the contract, either Party has the right to terminate the contract by notification within a reasonable period to the other Party. Unless otherwise agreed, the Parties expressly agree that the contract to be terminated by either Party if the duration of the impediment exceeds 120 days.

18. Hardship

- 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 Notwithstanding paragraph 1 of this Clause, where a Party proves that:
- (a) the continued performance of its contractual obligations has become excessively onerous due to an event beyond its 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 that
- (b) it could not reasonably have avoided or overcome the event or its consequences; the Parties are bound, within a reasonable time of the invocation of this 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 19.1.
- 19.2 Should one or several of the provisions under the contract and/or these terms and conditions be or become ineffective, the contracting parties shall replace the invalid provision with a legally valid provision that corresponds to the content of the invalid provision in legal and commercial terms.
- 19.3 Unless otherwise stipulated in the contract, the governing law of the contract and these terms and conditions shall be chosen following the rules as below:
- a) If TÜV Rheinland in question is legally registered and existing in the People's Republic of China, the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of the People's Republic of China.
- b) If TÜV Rheinland in question is legally registered and existing in Taiwan, the contracting parties hereby agree that the contract and these terms and conditions shall be governed by the laws of Taiwan.
- c) If TÜV Rheinland in question is legally registered and existing in Hong Kong, the contracting parties hereby agree that the contract and 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 firstly 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 submitted:
- a) in the case of TÜV Rheinland in question is legally registered and existing in the People's Republic of China, to the China International Economic and Trade Arbitration Commission (CIETAC) to be settled by arbitration under the Arbitration Rules of CIETAC in force when the arbitration 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 settled by arbitration in accordance with its then current Rules of Arbitration. 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 of 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.