

Shape Your Future with DECOPUR® Technology



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THE COMPANY

Global design and service partner for extraordinary surface finishing

Our processes and techniques create trendsetting solutions for customers

Guaranteed sustainability expertise and recycling reliability

First-hand innovation according to individual customer specifications



KURZ — impressively convincing

Family run business **since 1899** (5th generation)

Global leader in thin-film technology

Supplies **worldwide leading** products for surface finishing, decoration, labeling, and counterfeit protection

Over **5,500 employees**

Global presence in more than **30 locations**

Manufactures in **Europe, Asia** and the **USA**

**WE ARE,
WHERE
YOU ARE**

KURZ Group



LEONHARD KURZ Stiftung & Co. KG

Fürth
(Germany)



LEONHARD KURZ Stiftung & Co. KG

Sulzbach-Rosenberg
(Germany)



KURZ Transfer Products L.P.

Huntersville (USA)



Schöfer GmbH

Austria



Baier GmbH + Co KG

Maschinenfabrik
Germany



PolyIC GmbH & Co.KG

Germany



KURZ Stamping Technology Co. Ltd.

China



KURZ Production (Malaysia) SDN. BHD.

Malaysia



CANYON Graphics, Inc.

San Diego (USA)



Hinderer + Mühlich GmbH & Co. KG

Germany



BURG DESIGN GmbH

Austria



OVD Kinegram AG

Switzerland



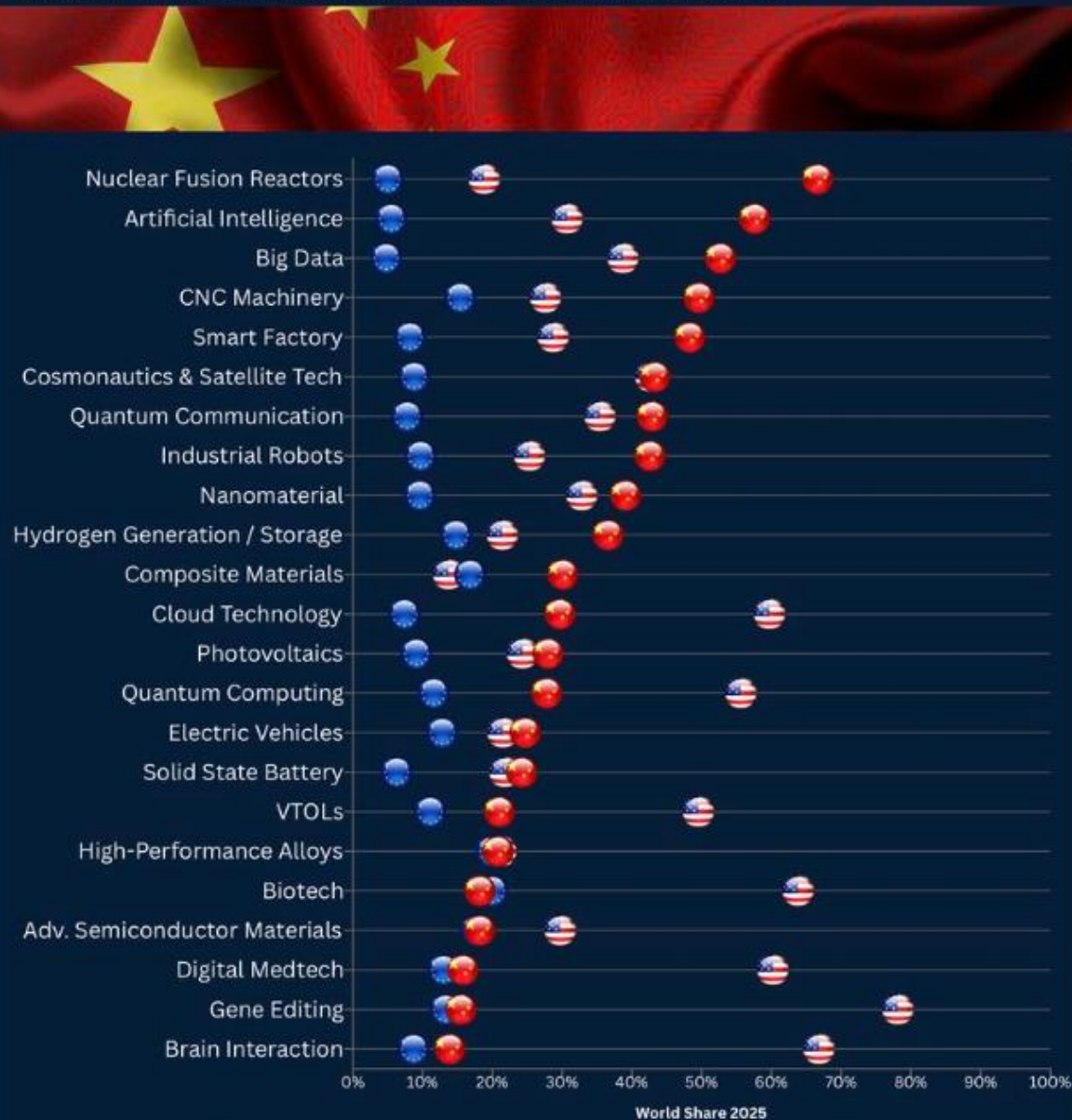
KURZ Vietnam

Vietnam

China New 5-Year Plan Tech Focus

EconSight

World share in high-quality patents (world-class patents) in selected technologies



www.econsight.com

KURZ

DIFFICULT
MARKET SITUATION

TECHNOLOGY INTEGRATION FOR FUTURE-READINESS

Automotive Rear End Cover

Efficient 2K IMD Process



- All visualizations shown can be realized - in a single production step and in series
- 5G-compatible metal designs
- Precisely defined backlighting with 3D light effects
- Different day-night designs
- Ideal for large components that can be installed directly
- Touch functions with Shy Tech designs
- Time- and cost-efficient IMD Process
- Reduces the carbon footprint
- Recyclability of the complete component
- Use of recycled material possible

Project Rear End Cover (big size single picture decoration solution)

KURZ LIVE Demo



High-efficiency dual-component
injection molding with IMD technology

Movie

Partners

- LEONHARD KURZ Stiftung & Co. KG
- Engel Austria
- PolyLC GmbH & Co. KG
- Schöfer Werkzeugbau
- Reichle Strukturtechnik
- Sabic Blend PC/ABS
- Röhm PMMA
- HRS Heißkanaltechnik
- Frimo Automatisierung Angußtrennung

Requirements

SUSTAINABILITY

Green compass: CO2 reduction by „One Step Prozess“

DESIGN

Seamless unique design

EFFICIENCY

Cost reduction: process- and transport reduction

Backlighting options – light compartmentalization

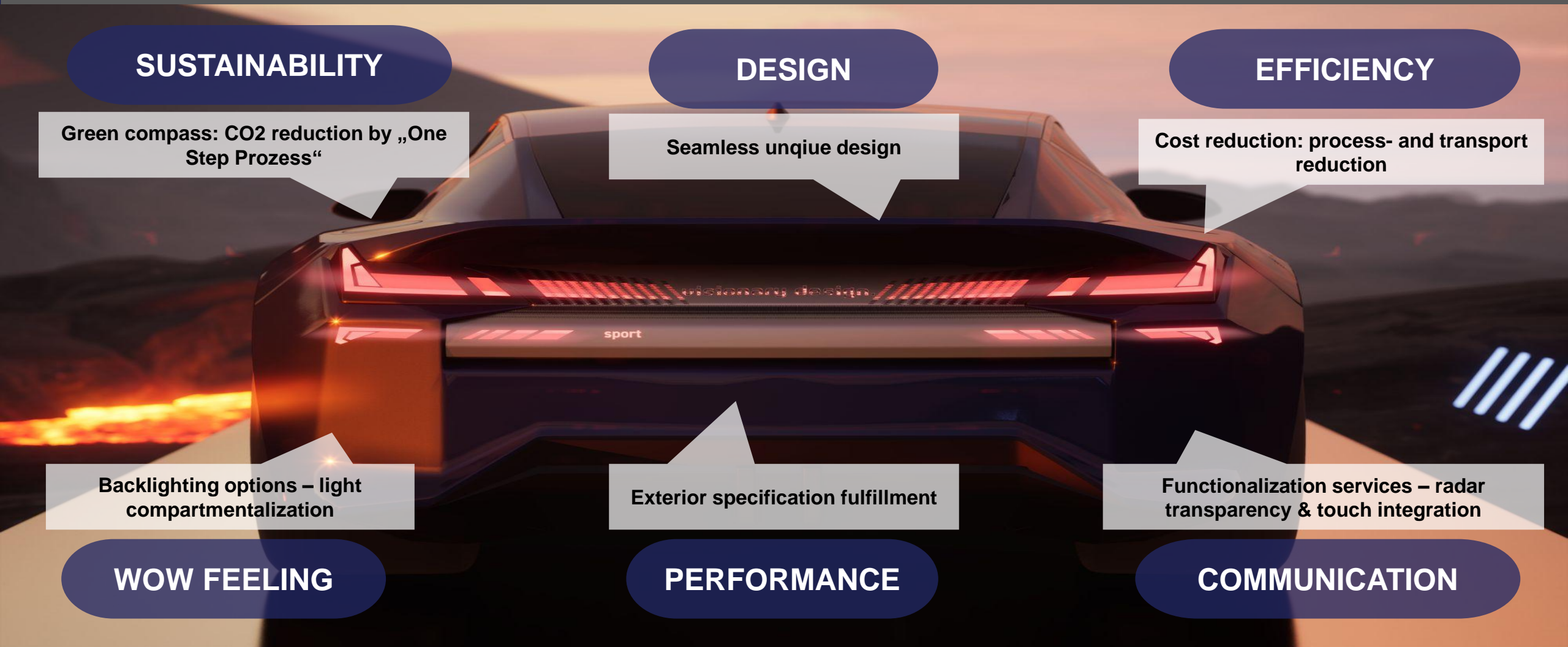
WOW FEELING

Exterior specification fulfillment

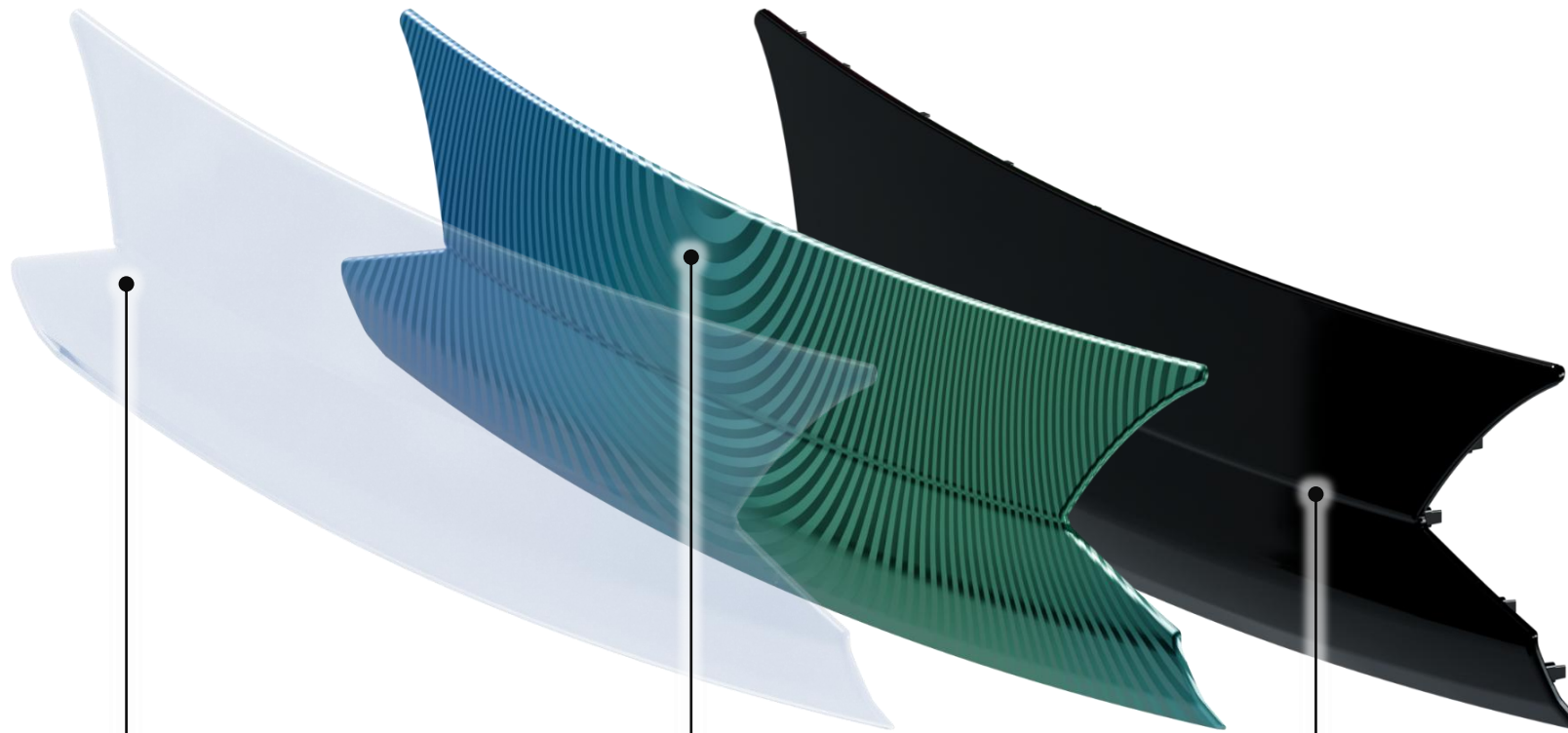
PERFORMANCE

Functionalization services – radar transparency & touch integration

COMMUNICATION



PUR Exterior



PUR layer

- Approved exterior requirements
- Depth / 3D effects

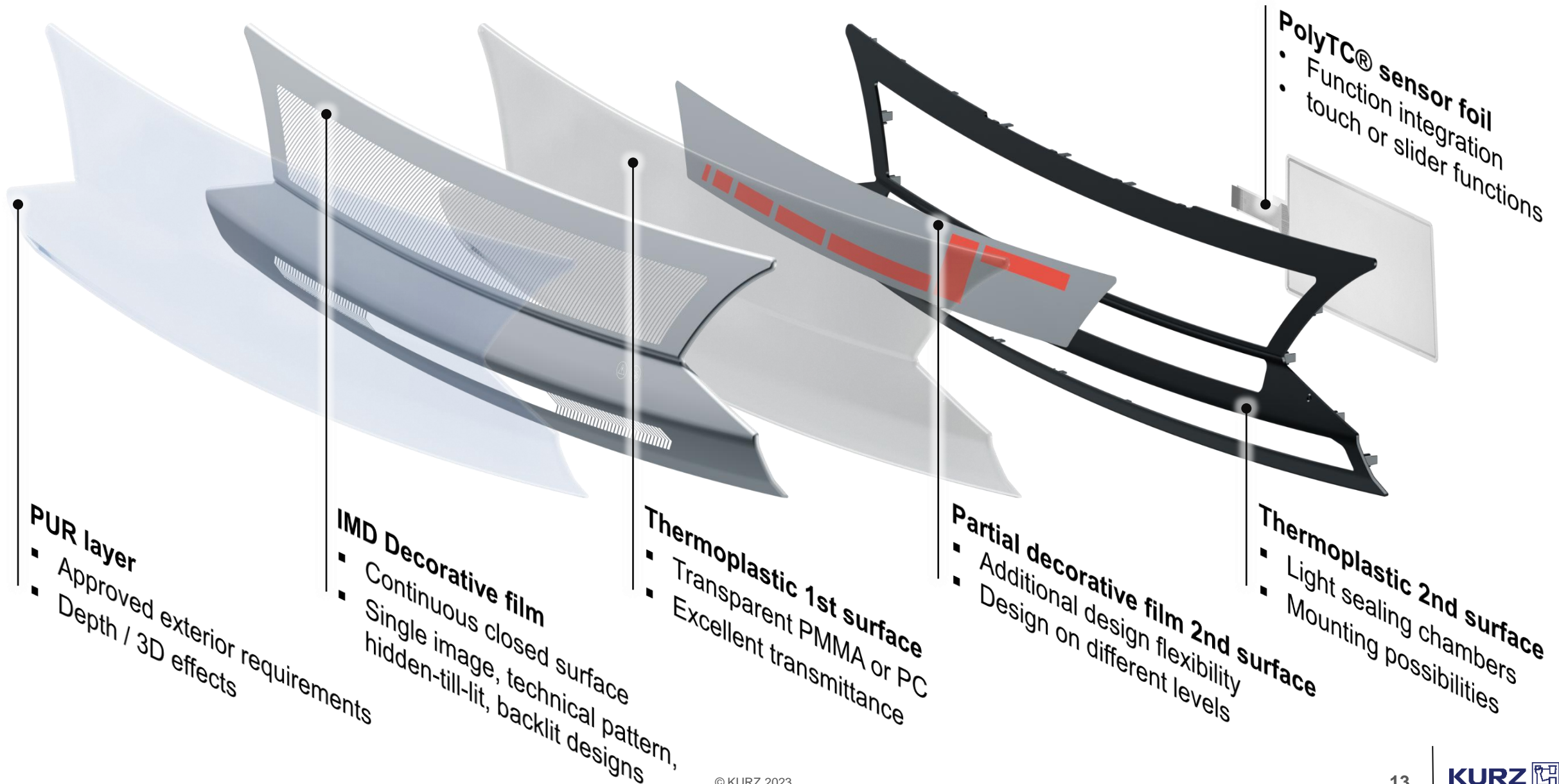
IMD Decorative film

- Continuous closed surface
- Single image, technical pattern, hidden-till-lit, backlit designs

Thermoplastic carrier

- Excellent transmittance
- RADAR / Lidar compatible
- Mounting possibilities

PUR Exterior – Actual Requirements



REQUIREMENTS

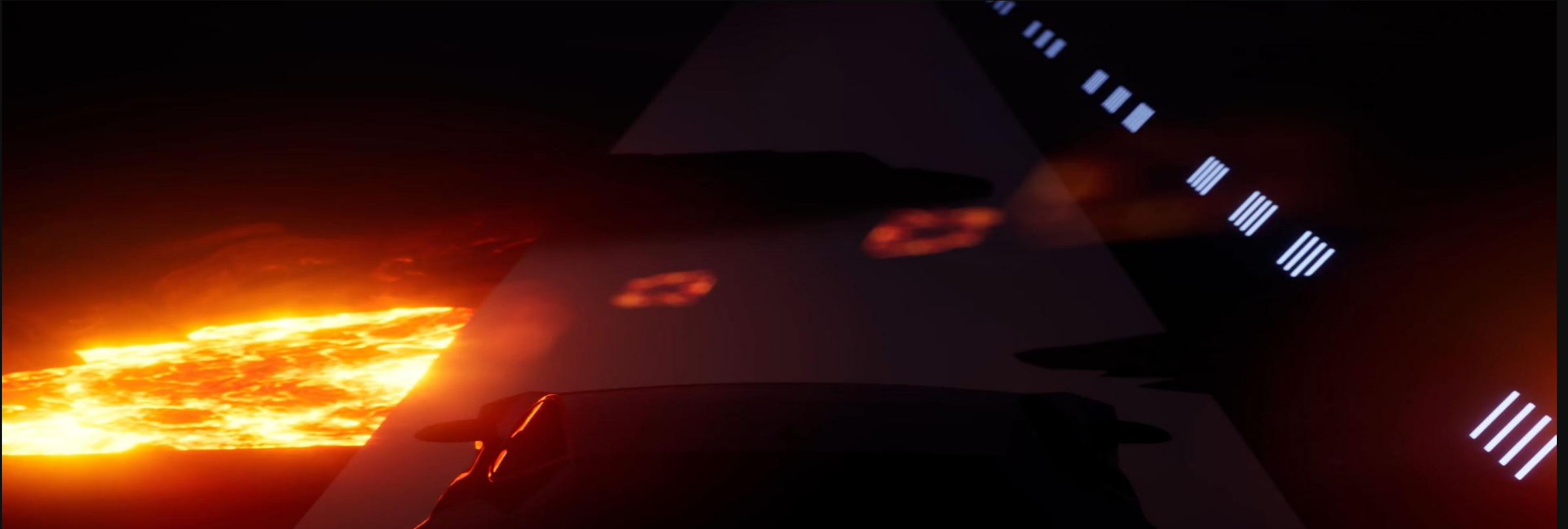
- ✓ Materials for exterior use
- ✓ Impact performance
- ✓ RADAR / Lidar transparent
- ✓ Design freedom
- ✓ Deep visual depth effect
- ✓ Electric components integrated
- ✓ Light design / light shielding



PUR Exterior – Actual Requirements



Multi K / Automotive Rear End Cover



IMD Mold Decoration IMD / INS + PUR Flooding

DECOPUR®

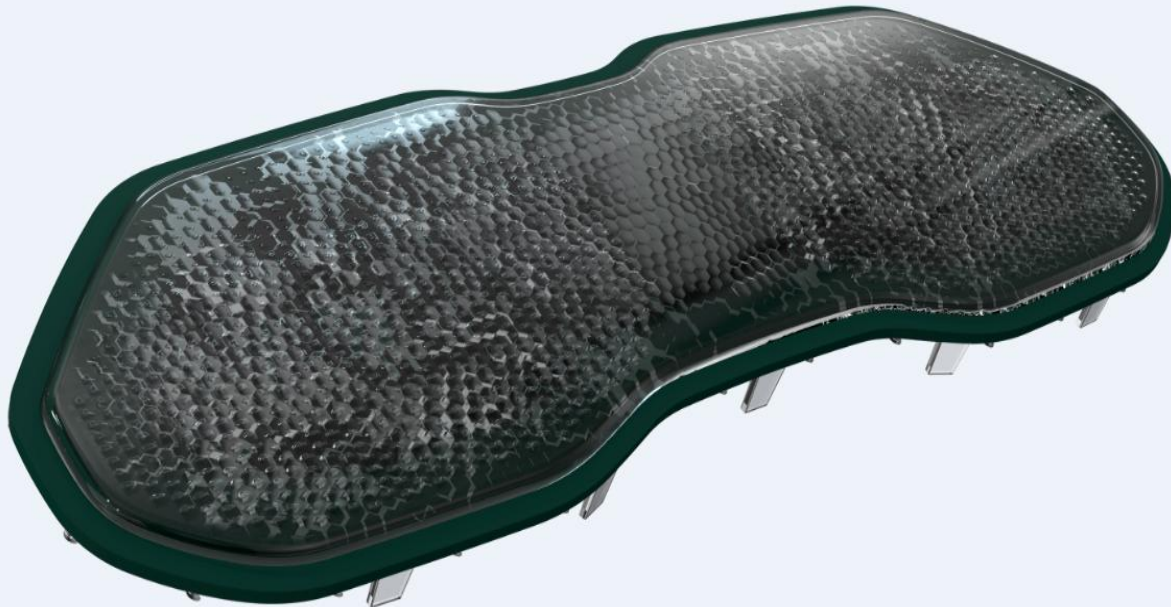
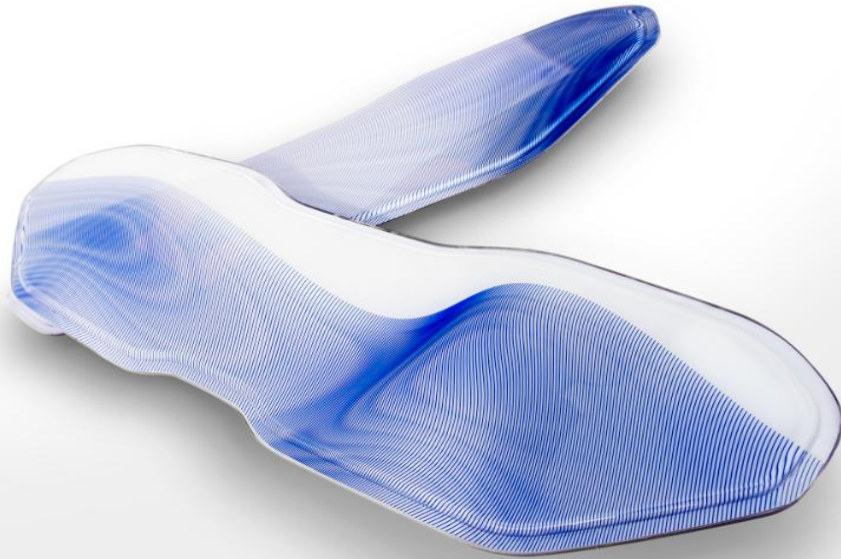
KURZ IMD + PUR

One-Step-Process-Solution

Roll to Roll

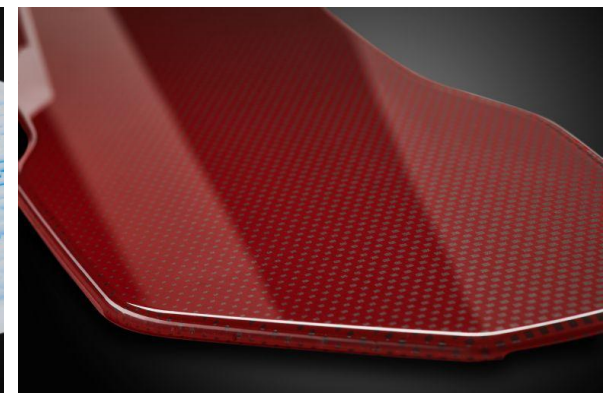
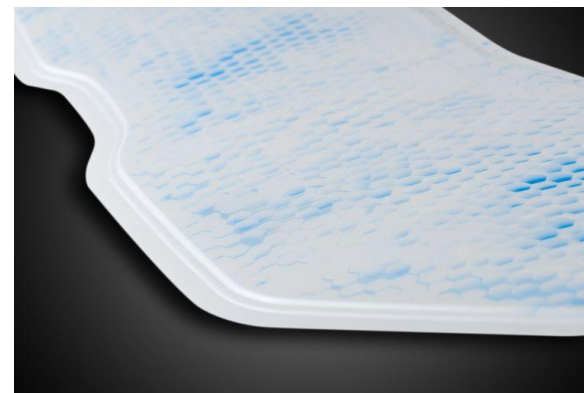
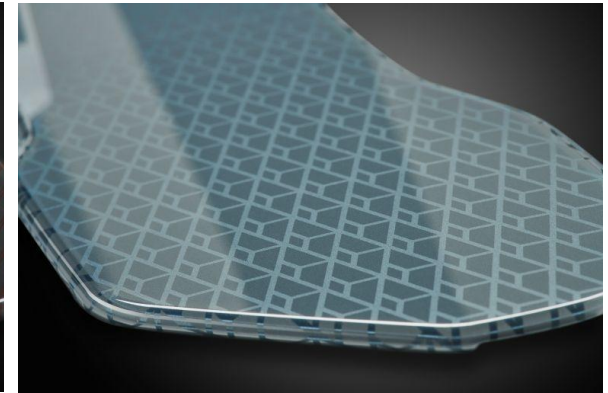
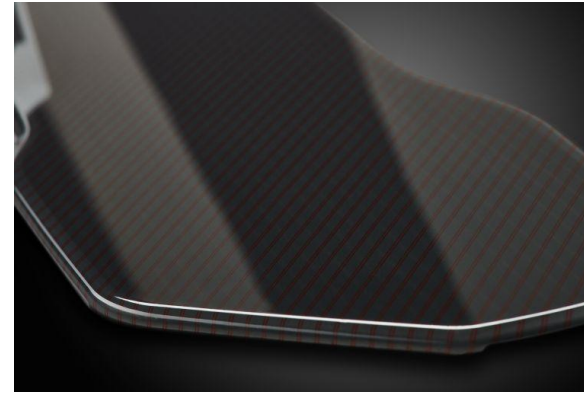
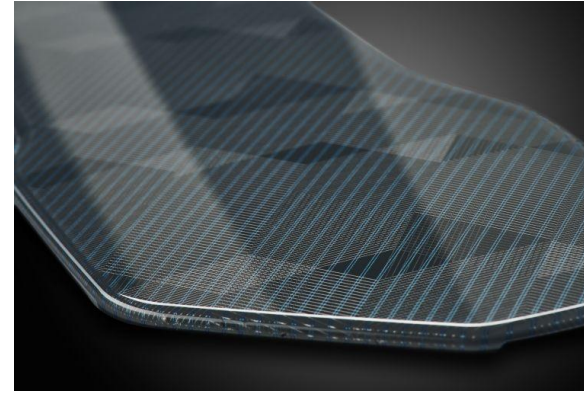
Thermoplastic Material + Polyurethan

2 K Process

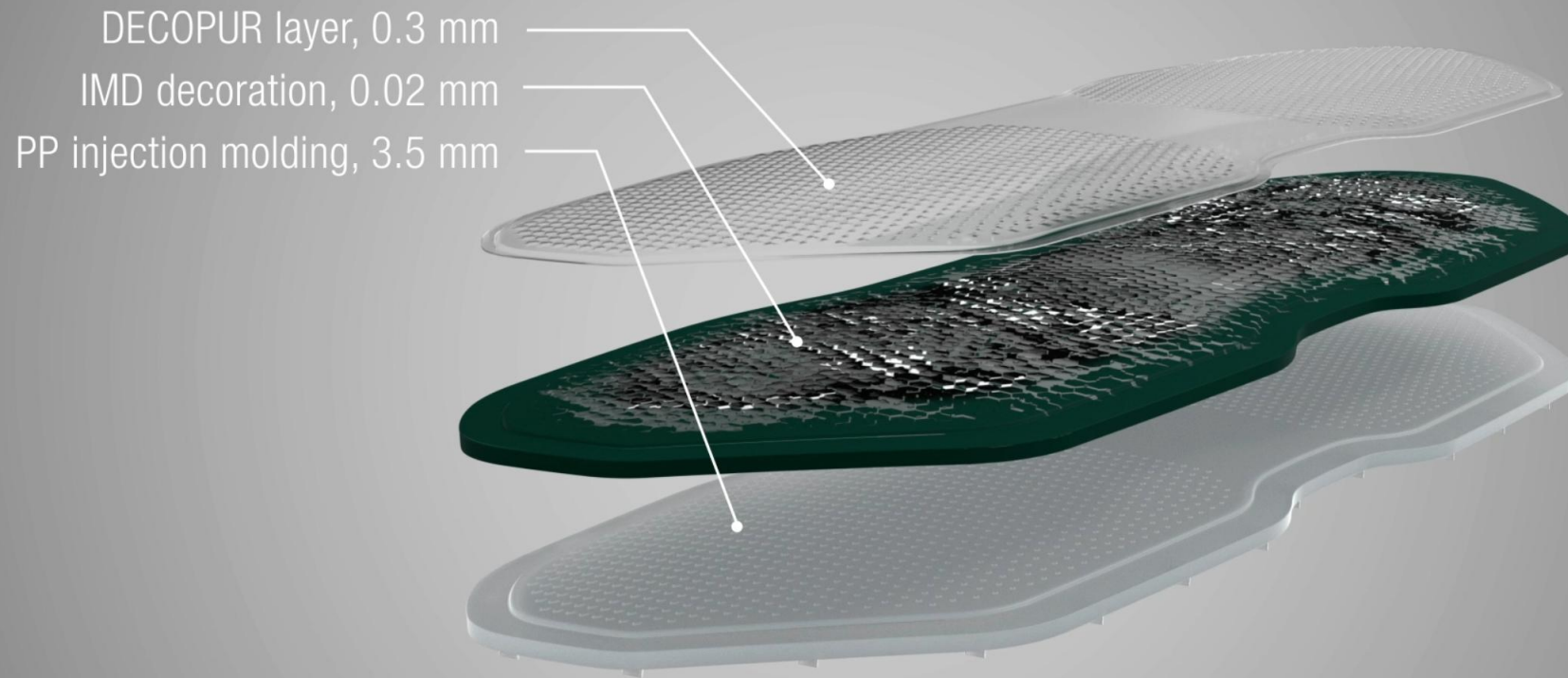


DECOPUR® – Design Possibilities

- Pigmented
- Metallized
- Brushed
- High gloss
- Matte
- Single Image
- Endless decor
- Backlighting
- Shy Tech / Hidden till lit



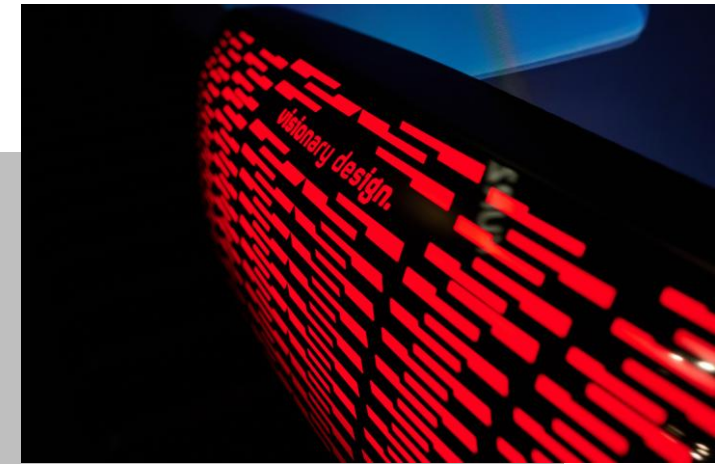
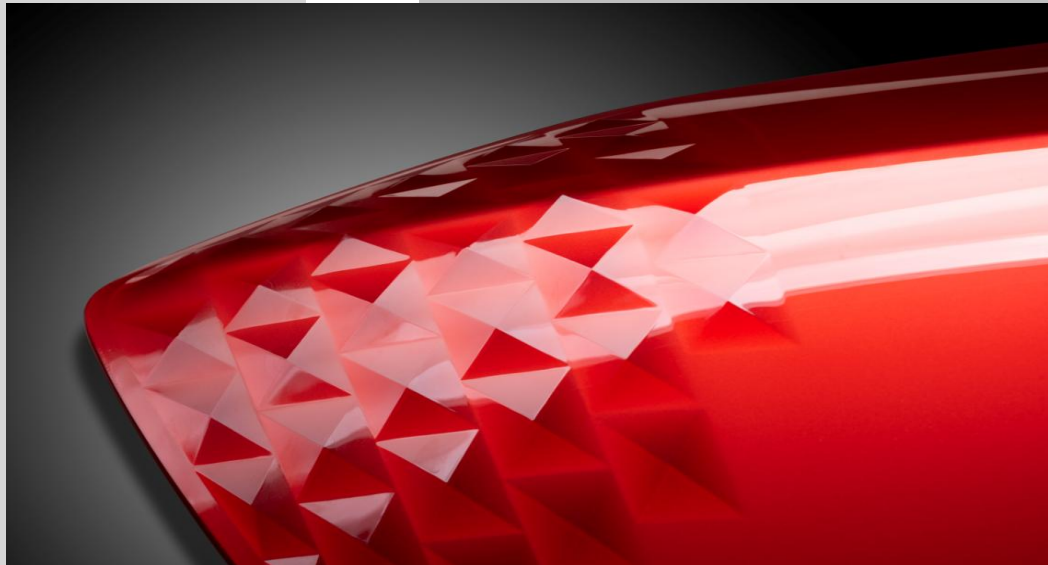
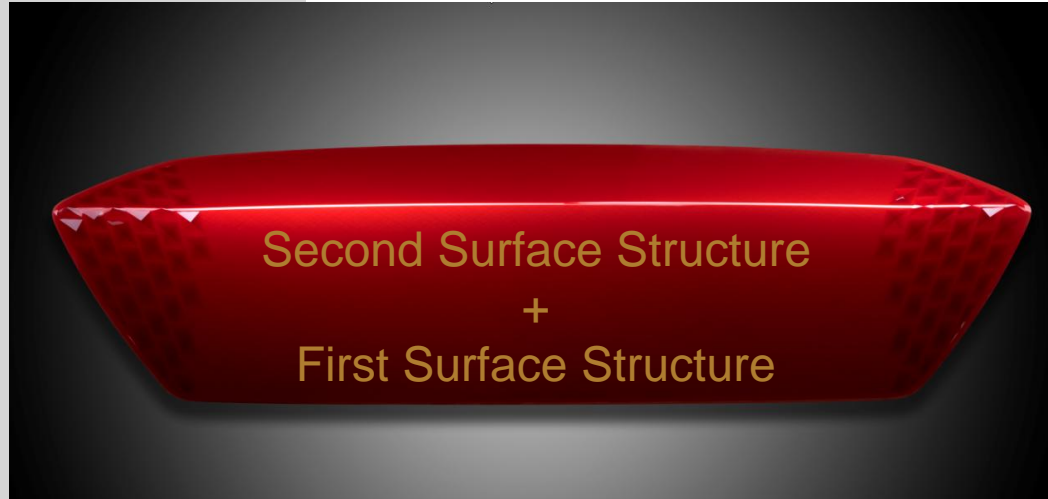
IMD *DECOPUR*® in ONE process special developed for PP



Project Partners:

- **SMP Bötzingen**
- Summerer
- Covestro

In Mold Decoration IMD + PUR Flooding Front End Technology



One-Step-Process-Solution

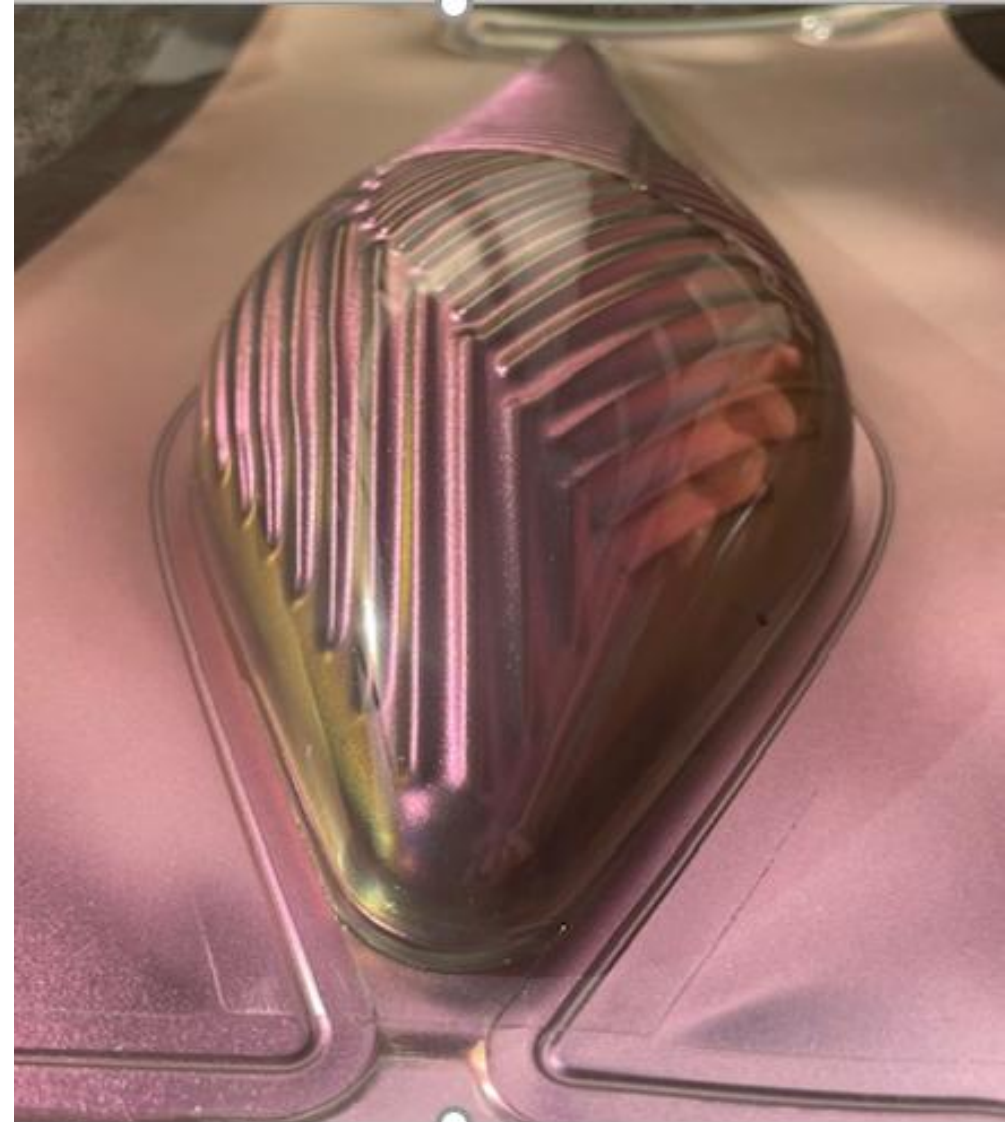
IMD Transfer Technology Roll to Roll

Thermoplastic Material + Polyurethan

2 K Process

Single Image Design

Second Surface Decoration
+ Second Surface Structure
+ PUR Flooding



Technology Integration & Innovation

KURZ Highlights @ K'2025



FrontIQ Light Concept

Rear Light Concept



**Key to Market Competitiveness =
Technology Integration & Innovation**



**Decopress Concept
with injection molding**

**Performance
CarKey Concept**





FRONT-IQ LIGHT CONCEPT - 3K-IMD Process Technology

FrontIQ Light Concept

Process Integration & Cycle Time Reduction



KURZ Project Partners:

- KraussMaffei (machine)
- Schöfer (tooling)
- Covestro, Sabic & Rühl (materials)

FrontIQ Light Demonstrator MADE by SP3 GmbH



FrontIQ Light Concept – Head light Component

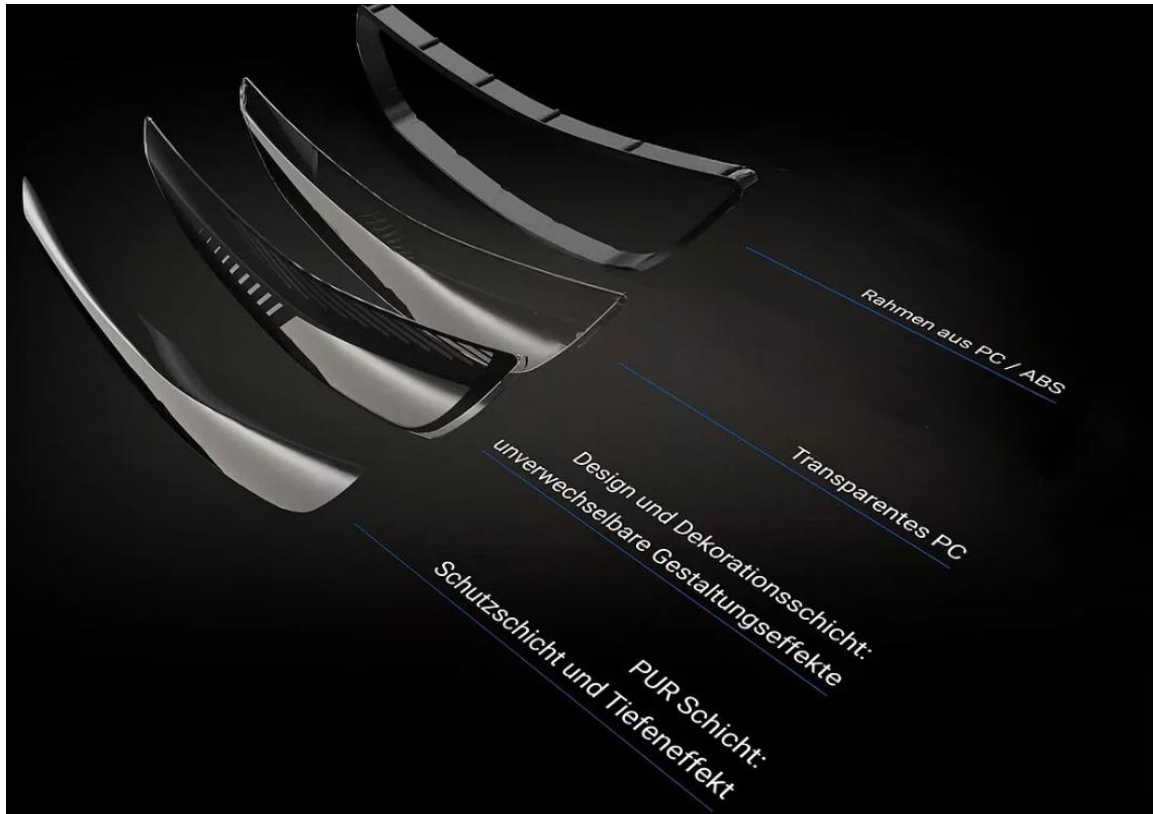
Efficient 3k Decoration Technology:

Layered Combination of Three Plastic Materials

➡ **FUTURE-READY TECHNOLOGY** fulfilling today's needs
in optimized cycle time, energy and cost efficiency
and improved CO² balance

FrontIQ Light Concept

Process Integration & Cycle Time Reduction



3K-IMD Process Technology // **BENEFITS**

- Production-ready technology
- High time, energy, and cost efficiency through one-stop production
- Injection molding, thermoforming, and decoration in a single process step
- Optimized cycle time of under 2 minutes
- Optimized CO2 footprint thanks to energy-efficient technology
- Seamless process integration into existing machine lines possible
- Ideal for manufacturing large components
- Integration of invisible heating elements and radar sensors possible
- Use of recycled materials and bio-based components possible

FrontIQ Light Concept

FUTURE-READY TECHNOLOGY.... unique results in optimized cycle time, energy and improved CO² balance.

Extreme potential for significant reduction in manufacturing costs



FrontIQ Light – Production equipment

Innovative production cell from KraussMaffei GXW650 / SP2000 / SP2000

RimStar Compact Dosing Unit

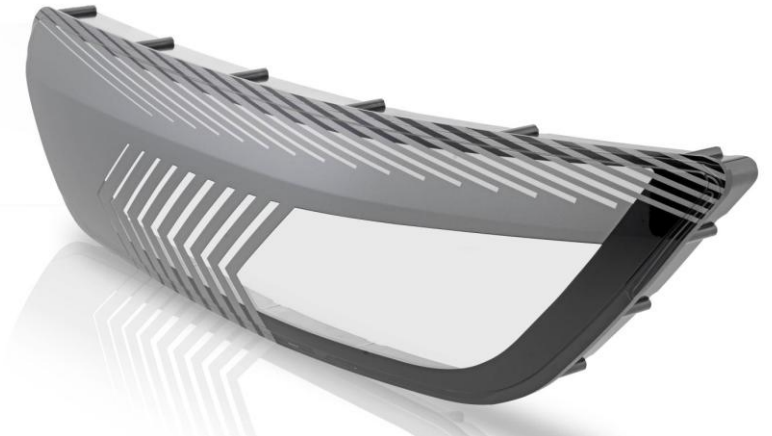
Heated high pressure pumps 8l + 8l in combination with an MK5-2K mixing head with a max. output of 200 g/s

Turnkey-Solution - fully automated

1. Robot: KUKA KR210 – payload 210kg
2. EOAT: Double-sided Gripper (weight: ~92kg)
Side 1: **Matrix infrared heater**
Clamping frame handling & foil heating
Side 2: **Vacuum gripper**
Film handling → picking up, centering, preforming
3. Drawer for foils
4. Pre-form station for foil centering & vacuum forming
5. Clamping frame
6. Conveyor belt for finished product

GXW 650 / 2000 / 2000

- Two injection units for two times thermoplastic
- Vacuum pump system for thermoforming the film
- Compression moulding



REAR LAMP LIGHT
CONCEPT – 2K-IMD Process
& Functional Integration

Rear Lamp Light Concept

Process Integration & Functionalization



2K- InMold Decoration = Back-injection + PUR overflooding



Mc

ht concept

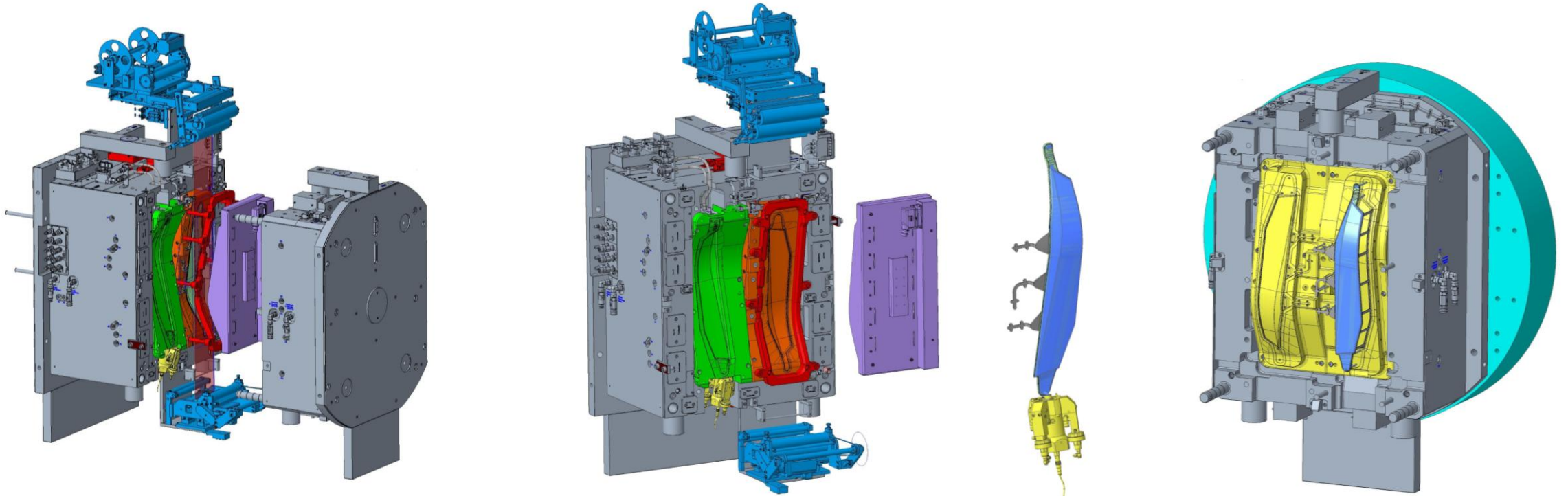
ENGEL

Rear Lamp Light Concept

Process Integration & Functionalization



ZECHMAYER
Werkzeugbau - Formenbau



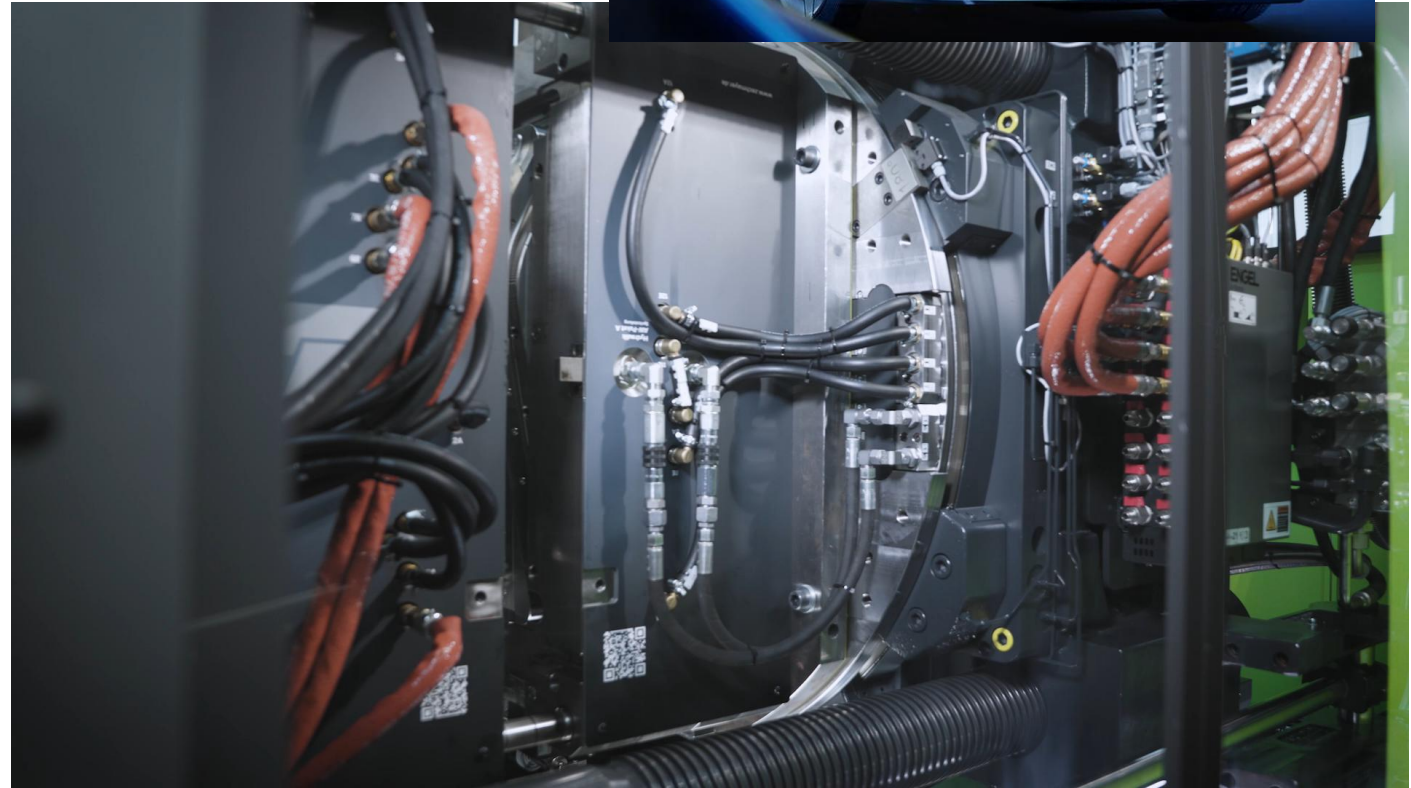
Rear Lamp Light Concept

Process Integration & Functionalization



KURZ Project Partners:

- Engel (machine)
- Osram (lighting)
- Baier (FFB tooling)
- Röhm (materials)



➡ FUTURE-READY TECHNOLOGY fulfilling today's needs in process & functional integration, energy and cost efficiency and improved CO² balance

Rear Lamp Light Concept

Process Integration & Functionalization



2nd step: Functionalization with FFB adhesive Technology



Functional Foil Bonding (FFB) Adhesive
Automated Label Bonding for Sensitive Parts
and Complex Geometries

➡ FUTURE-READY TECHNOLOGY fulfilling today's needs
in process & functional integration, energy and cost
efficiency and improved CO² balance

Rear Lamp Light Concept

Process Integration & Functionalization



LIGHT „OFF“- Mode

- Dead-Front / Seamless Design

LIGHT „ON“ - Mode

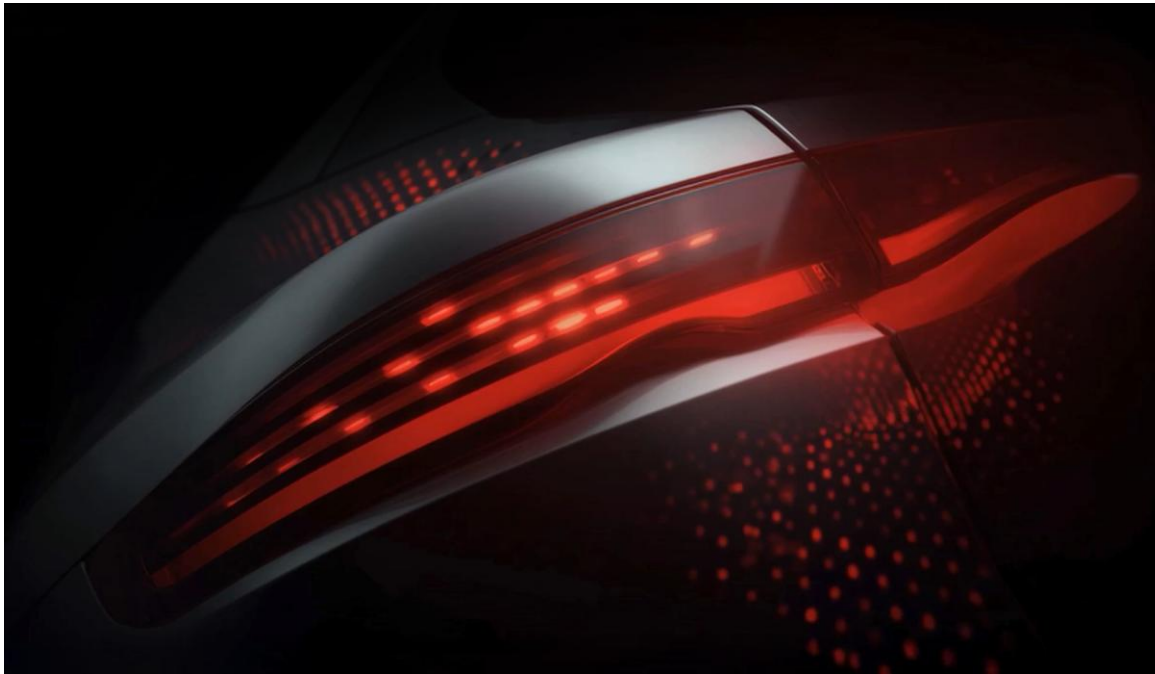
- Ambient Lighting
- Static & Dynamic Lighting
- Individual Light Design

FUTURE-READY TECHNOLOGY.... unique results in optimized cycle time, energy and improved CO² balance.

Extreme potential for significant reduction in manufacturing costs

Rear Lamp Light Concept

Process Integration & Functionalization



2K-IMD Process Technology & Functional Integration with FFBadhesive® // **BENEFITS**

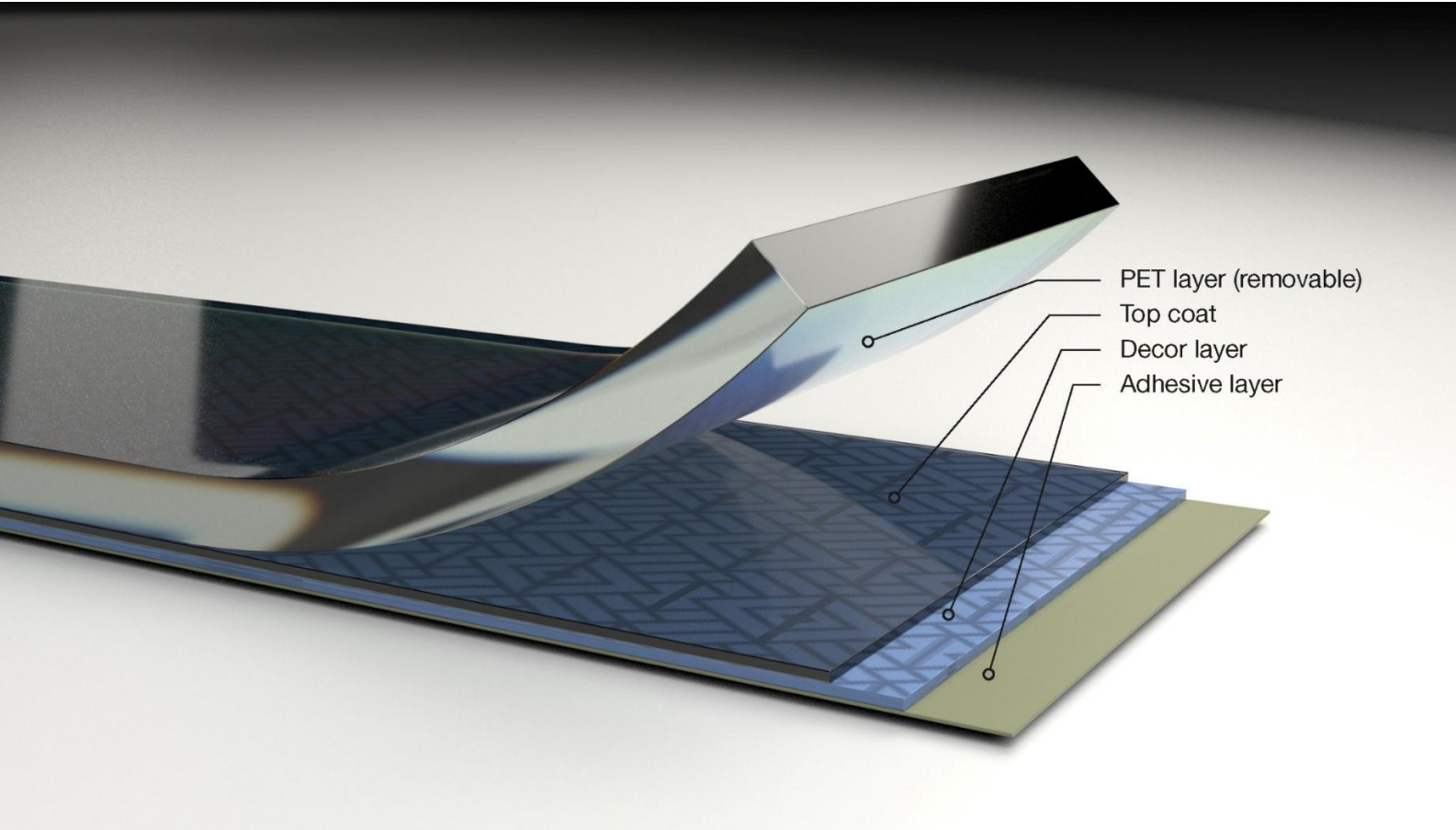
- Precise control, short cycle times, and high process reliability through adhesive activation via UV light
- Gentle processing without thermal or mechanical stress
- Ideal for sensitive surfaces and materials such as touch sensors, LED labels, or electronics
- High design freedom and segment-specific customization
- Reliable application to complex geometries
- Production-ready technology
- Turnkey solution: Process, system, adhesive, and touch sensor from a single source



Transfer Layer Decoration
Combined with DECOPUR®

In-Mold Decoration (IMD) Technology

Transfer Layer Decoration

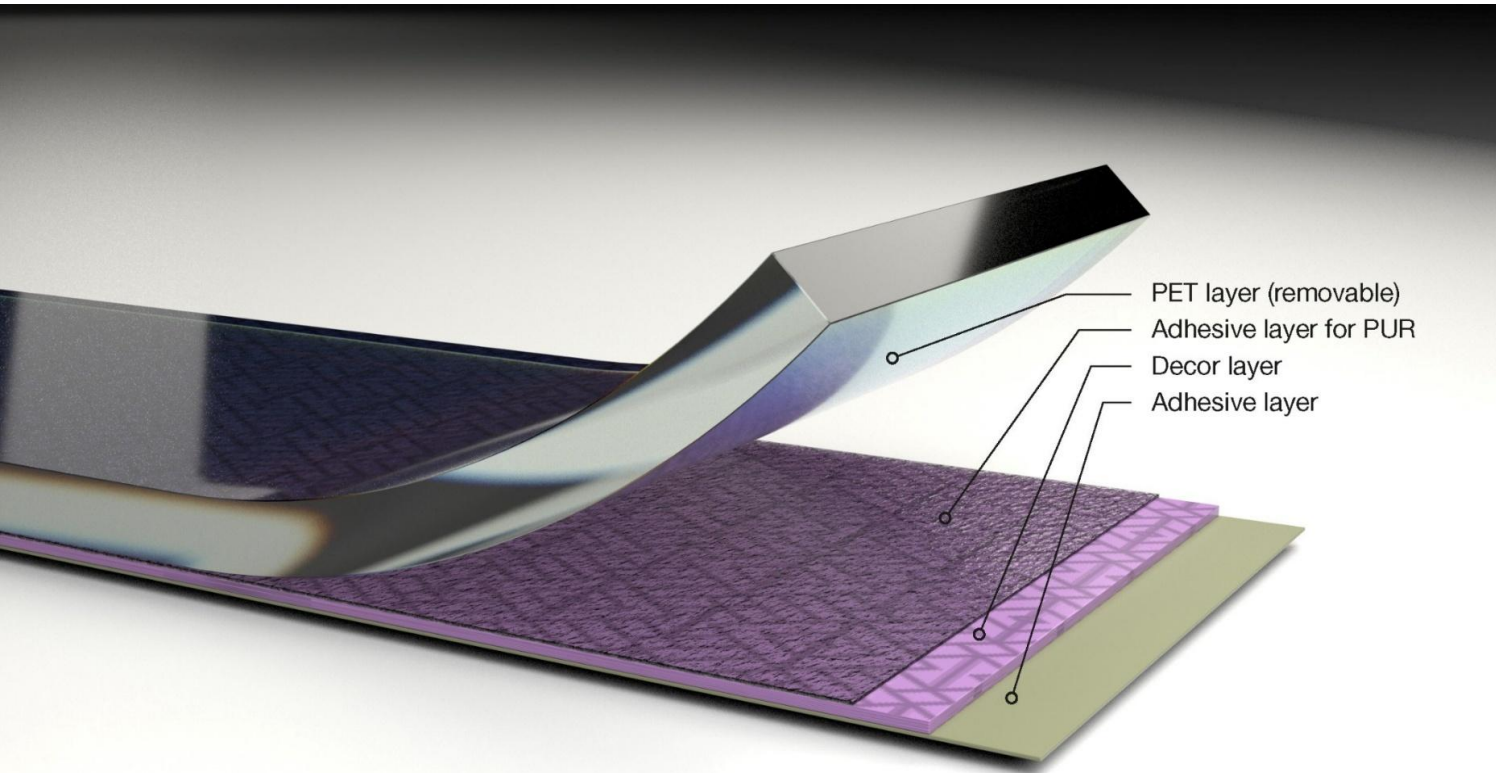


Customized Top Coat System – Key Features:

- Integrated in the transfer lacquer layer
- Includes decorative layer and primer
- Ensures strong bonding to thermoplastics
- Provides high-gloss, crystal-clear or matt, structure surface
- Enhances depth, color, and 3D visual effects

In-Mold Decoration (IMD) Technology

Transfer Layer Decoration Combined with DECOPUR®



DECOPUR® Technology

In-Mold Decoration (IMD) Process

+

Polyurethane (PUR) coating

- Decorative film is inserted and bonded with plastic during injection molding.
- Heat dissolves the coating, creating a strong bond.
- Polyurethane (PUR) is added in the same step.
- Result: high-gloss, 3D-effect parts with deep colors and patterns or matt optics.
- Structure integration possible
- PUR coating is scratch-resistant and self-healing.

THANK YOU
FOR YOUR ATTENTION !

SUSTAINABILITY CONCEPT – NFPP- Decopress® Solutions

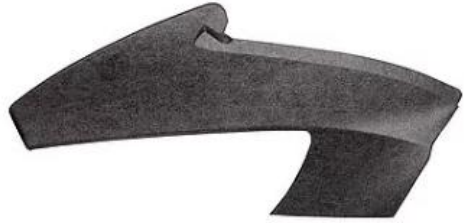
Sustainability Concept

Aesthetic & Durable NFPP Decoration

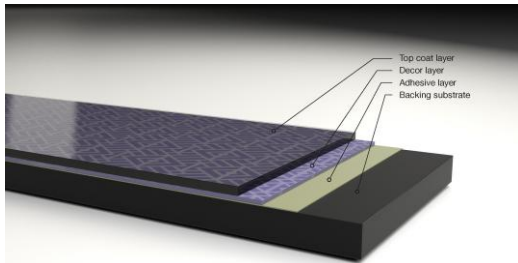


KURZ Project Partners:

- Wittmann (machine)
- Frimo (tooling/ technology)
- Polyvlies (natural materials)
- Isosport (materials)



Foil construction = INS



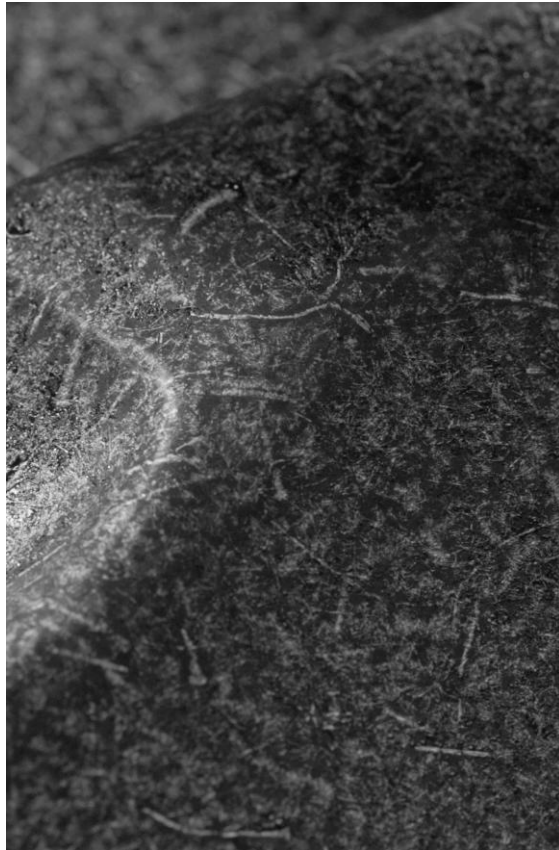
NFPP material
(kenaf, flax, ...)



➡ FUTURE-READY TECHNOLOGY fulfilling today's needs in sustainability (design & durability) and improved CO² balance

Sustainability Concept

Aesthetic & Durable NFPP Decoration



Unicolor, Technical Patterns,
Wooden Optics, ...
→ Design Options are manifold!!



NFPP Decopress® Technology // **BENEFITS**

- Surface decoration for natural fiber composites
- Warm, organic feel
- 25–40% Lighter components
- More stable than injection-molded parts
- Smart decorative elements can be integrated



PERFORMANCE Car Key – New Protective Layer Solutions

KURZ PLF Protective Layer Finish

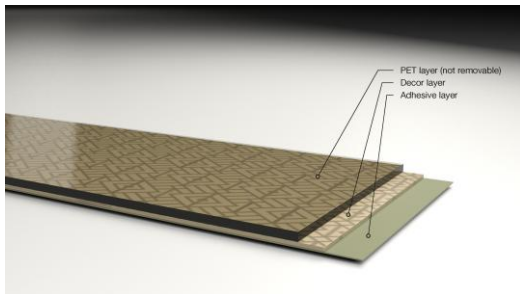


KURZ Project Partners:

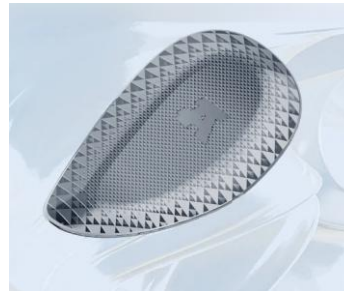
- Arburg (machine)
- Schöfer (tooling)
- Reichle (tool structuring)
- Sysplast (materials)
- Huf Hülsbeck (key producer)



Foil construction = PLF



+ Structure in the Mold



FUTURE-READY TECHNOLOGY

- * flexibility in structure via mold structure
- * PLF construction for higher abrasion requirements

Video Source: Arburg

THANK YOU
FOR YOUR ATTENTION !