
VOTTELER
REICHLE
TECHNOLOGIEZENTRUM
WELCOME TO THE 2025 TECHDAY FOR ELIMINATION OF EXTERIOR VEHICLE PAINTWORK

YOUR HOSTS FOR THE NEXT TWO DAYS

VOTTELER

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Votteler Lackfabrik GmbH & Co. KG

REICHLE TECHNOLOGIEZENTRUM

Marco Reichle

Geschäftsführer
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NOTICE: PHOTO & VIDEO RECORDING AND SAFETY REGULATIONS

- Please be aware: Photos and video recordings will be taken throughout the TechDay. By attending, you consent to the use of this material for internal and external communication purposes.
- Carrying mobile phones and cameras **is not permitted** in our technical areas. This is for your safety and to protect sensitive information.
- **Please refrain from taking photos in the technical areas.** This helps protect confidential information and ensures the safety of all participants.

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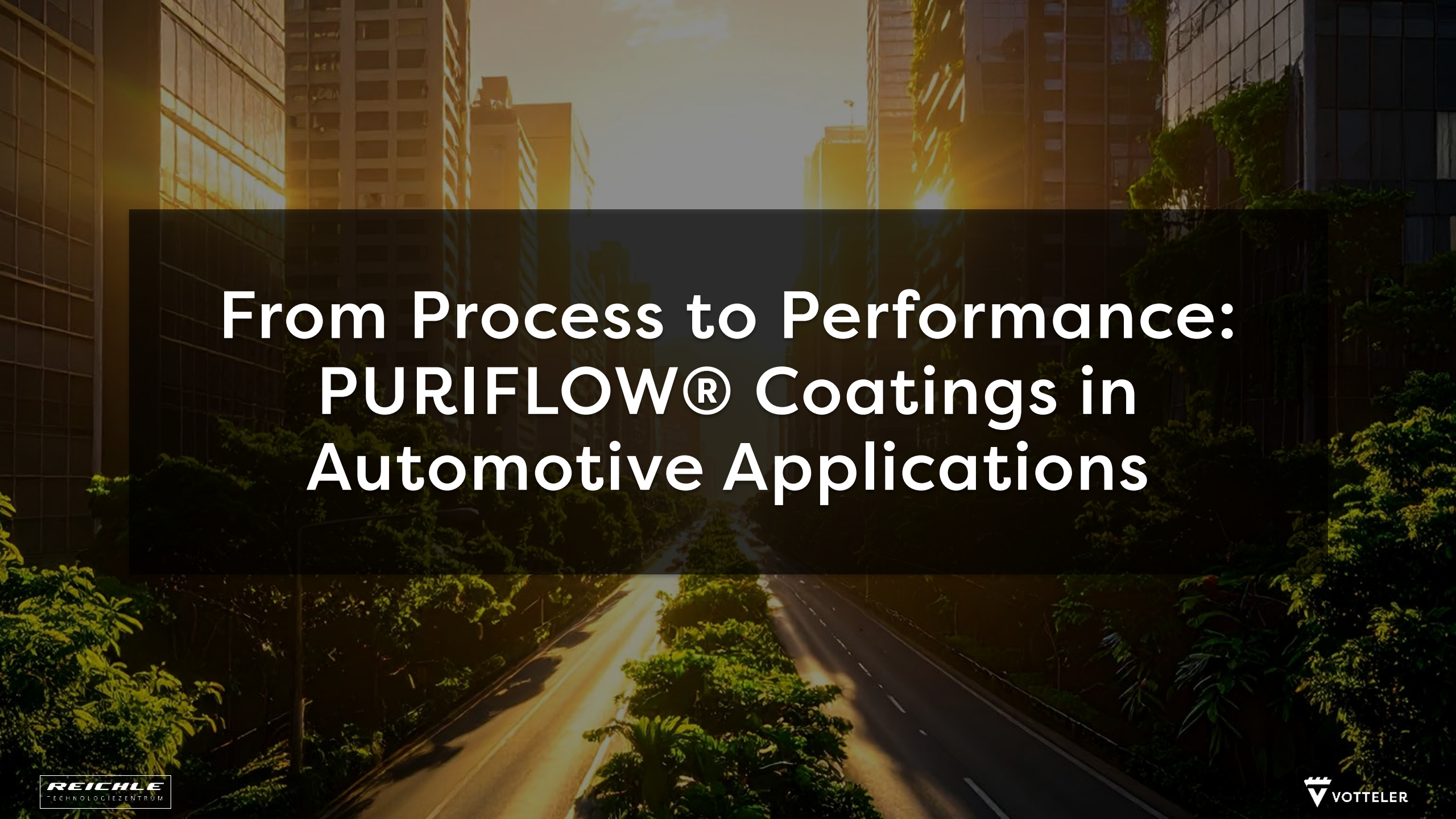

From Process to Performance: PURIFLOW® Coatings in Automotive Applications

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A short Story about Us

1907

Founded in the black forest with a heritage in woodcarving.

1915

Specialising in surface refinement and finishings.

1972

Expansion of a subsidiary in Switzerland.

1993

After years of trading with Austria, the expansion into a subsidiary here as well.

2014

Transition from a family business to a foundation and now operating with full independence.

2024

Leading manufacturer of wood finishing and polyurethane coatings.

Votteler Network – strategically positioned for your success

Europe

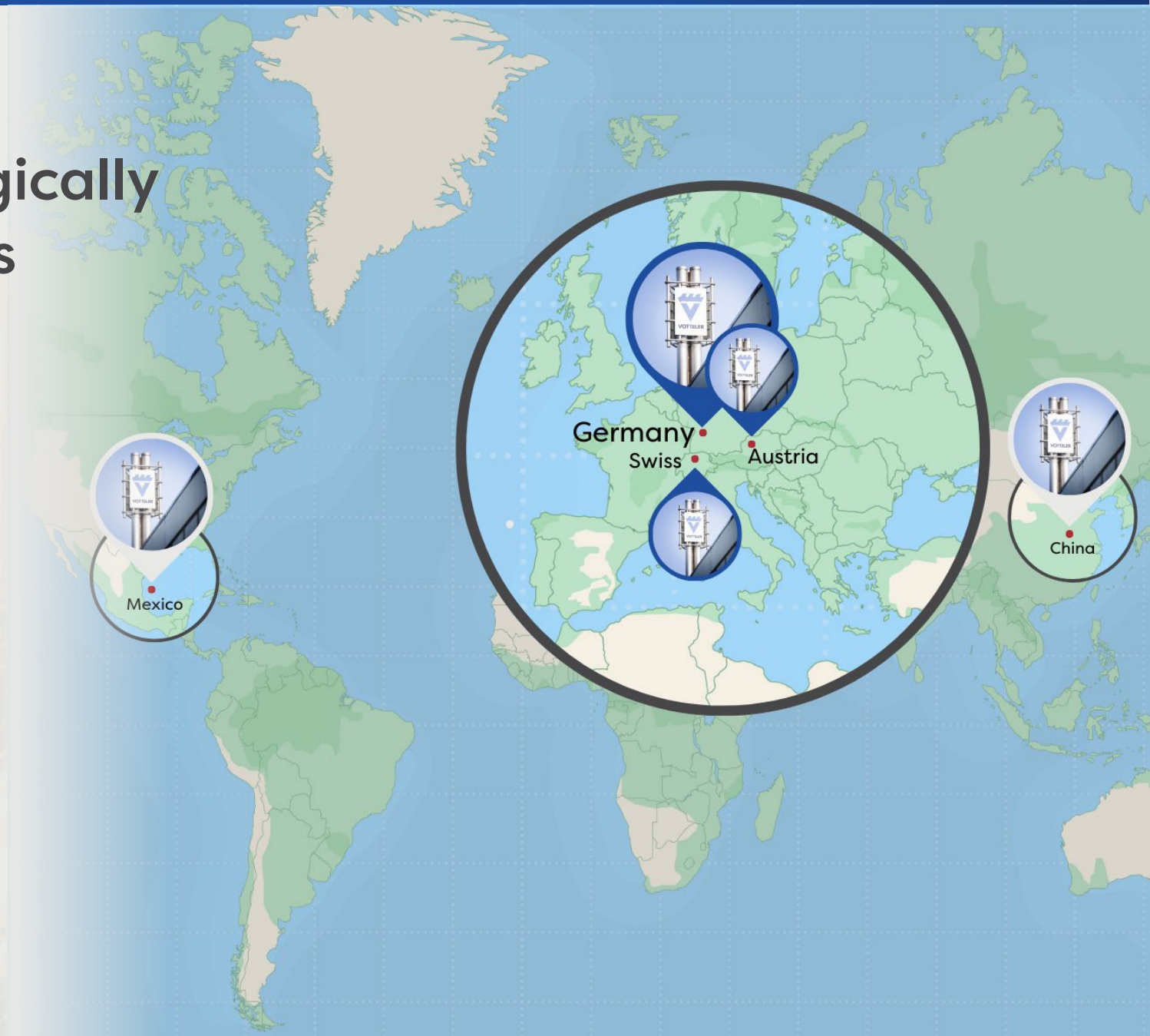
- Headquarter
- Production
- Sales & Service team

Asia

- Sales
- Logistics (under development)

North America

- Logistics



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This is where we shine: Well-positioned in future orientated industries

Automotive

We make vehicles stand out from the crowd.

Reaction-Injection-Molding (RIM)

An unparalleled, versatile allrounder.

Wood Industry

At home in high-end interiors all over the world.

Bonding

THERMOSTA® - the better solution for laminating.

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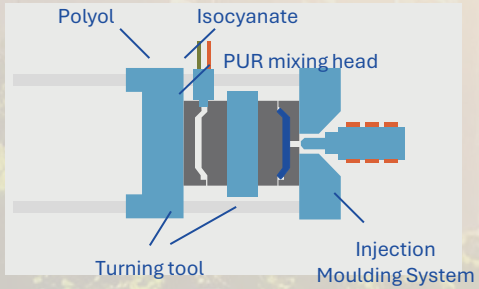
The PURIFLOW® - Two in One-Shot-Process

State of the art In-mold coating

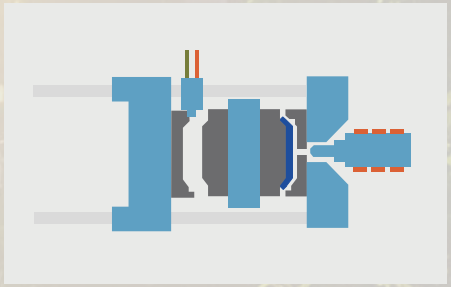
How does IMC Two-In-One-Shot work?

In a nutshell: “An off-tool, coated class A-part that is manufactured in a single process in a closed mold.” This method has been tested and approved by renowned OEMs and has proven itself over many years.

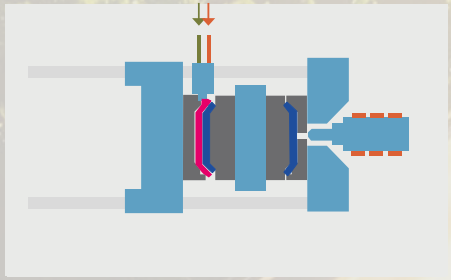
1. Injection of thermoplastic base material



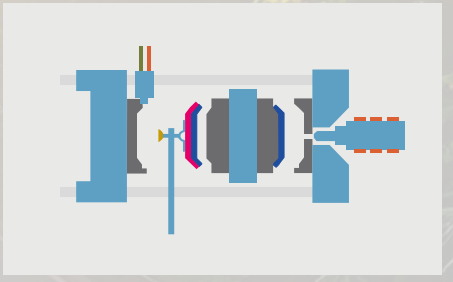
2. Mold opens, swivel platen turns by 180°, mold closes



3. Coating of the thermoplastic part with our PUR while simultaneously injecting thermoplastic for the next cycle



4. Mold opening, demolding and restarting the process cycle



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Video

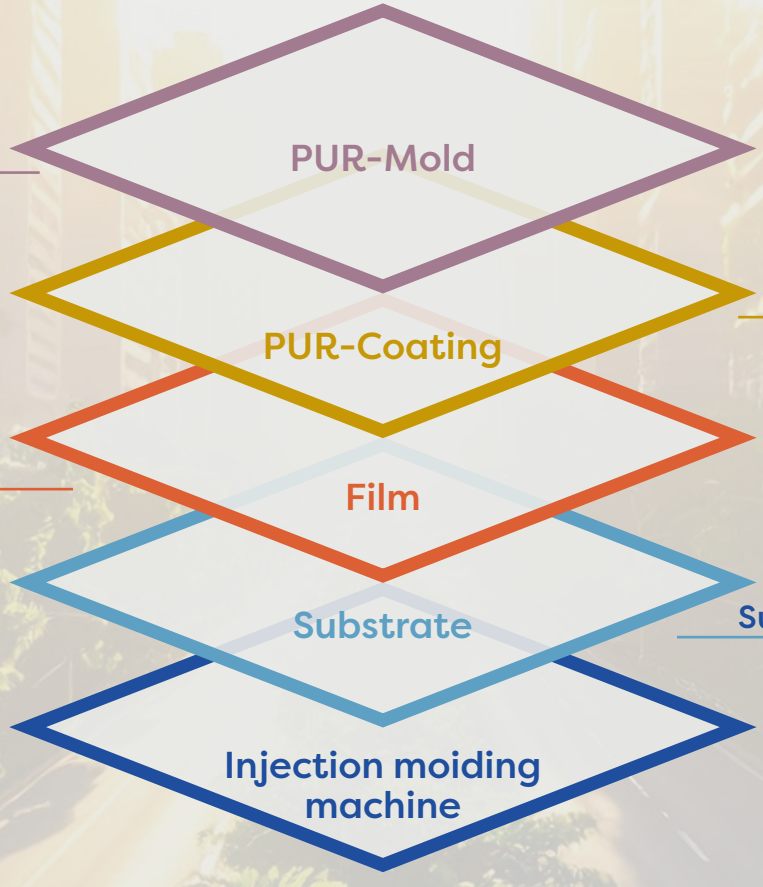
Endless possibilities with PURIFLOW®

Tool Surface

- High gloss
- Matte
- Textured
- Satin finish
- Etc.

Film:

- Decorative Film
- Functional Film (touchscreen or other functions)
- Films for adhesion
- Veneer



PUR:

- Transparent / Brilliant
- Colour (e.g. piano black)
- Effect (e.g. pearlescent & metallic)
- Hard
- Soft

Substrat

- Different thermoplasts
- Composite
- Glass
- Wood

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The VOTTELER Two in One-Shot-Process

- **Fast Color Changes**

  Innovative systems with integrated release agents enable quick and efficient color transitions.

- **Flexible Hardness Range**

  Adaptable modular design allows Shore hardness from A50 to D83.

- **Multiple Surface Effects**

  Achieve diverse finishes on one part – in a single process.

PURIFLOW® - Overview of our PU Systems

From concept to reality

The VOTTELER® RIM-Line Family Grows
The New PU931 and PU941 PURIFLOW®

PU931	PU911	PU941	PU990	PU992	PU998	PU999
Shore D83	Shore D83	Shore D82	Shore D81	Shore D72	Shore A70	Shore A67
Scratch resistance ★★★	Scratch resistance ★★★	Scratch resistance ★★★	Scratch resistance ★★★	Scratch resistance ★★☆	Scratch resistance (★★☆)*	Scratch resistance (★★☆)*
GTT @ 100°C	GTT @ 85°C	GTT @ 75°C	GTT @ 50°C	GTT @ >40°C	GTT @ <0°C	GTT @ <0°C
Chem. resistance ★★★	Chem. resistance ★★★	Chem. resistance ★★★	Chem. resistance ★★★	Chem. resistance ★★☆	Chem. resistance ★★☆	Chem. resistance ★★☆

Polishable — Surface characteristics — Reflow

Hard — Hardness — Soft

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PURIFLOW® Adjustable shore hardness

Shore hardness in relation to the glass transition temperature

GTT: Glas Transition temperature / SH: Shore Hardness

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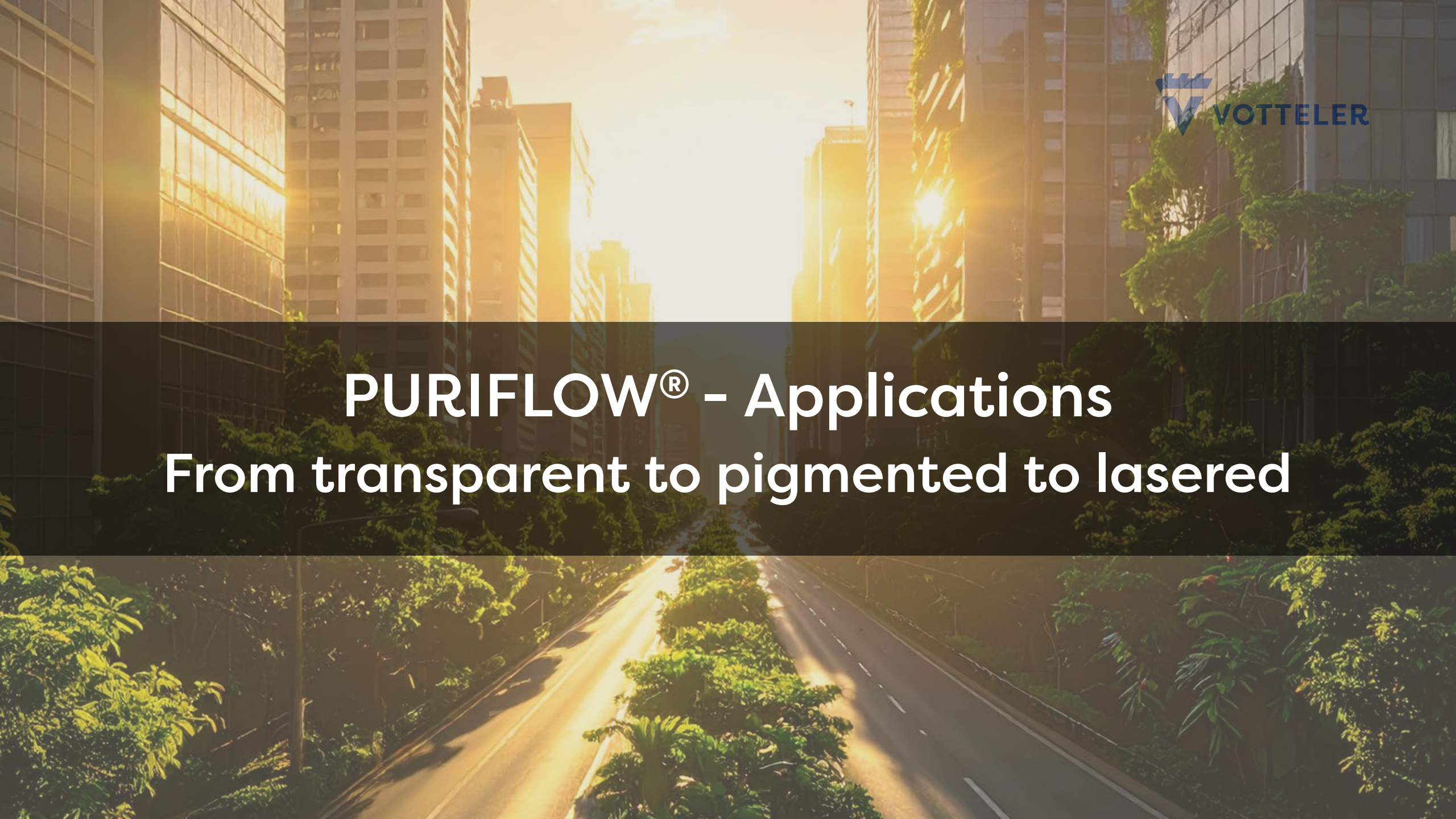
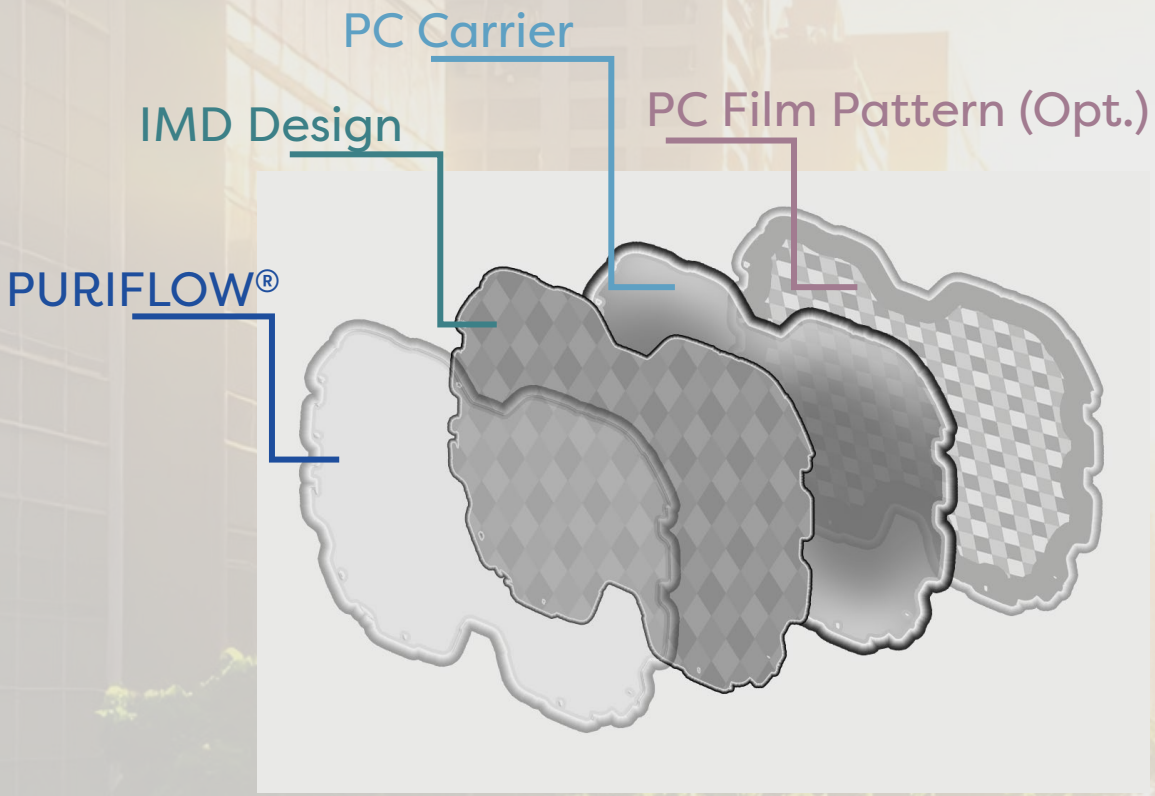
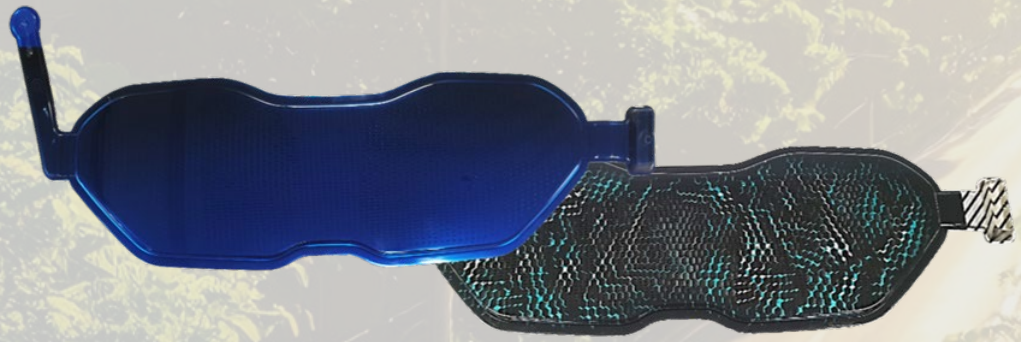


PURIFLOW® - Applications
From transparent to pigmented to lasered





Front part for autonomous driving

- Ready for electromagnetic transparency
- Clear decorated surface and easy design change by changing the film or insert
- Surface design freedom
- Reflow Effect
- High UV- and heat stability
- Good adhesion to the film
- Cycle time: > 70sec

PURIFLOW® PU992 - Series approved material (exemplary)

Test	Specification	Assessment
Steam jet test	AA-0136	Passed ✓
Scratch inclination	GS 97034-8	Passed ✓
Scratch test	GS 97034-9	Passed ✓
Car wash brush resistance	AA-0054	Passed ✓
Chemical resistance	AA-0055	Passed ✓
Odor	GS 97014-4	Passed ✓
Light fastness	DIN EN ISO 105-B06	Passed ✓
Manual abrasion test	GS 97034-1	Passed ✓

PURIFLOW® - Piano black applications

VW Tiguan wheel arch liner

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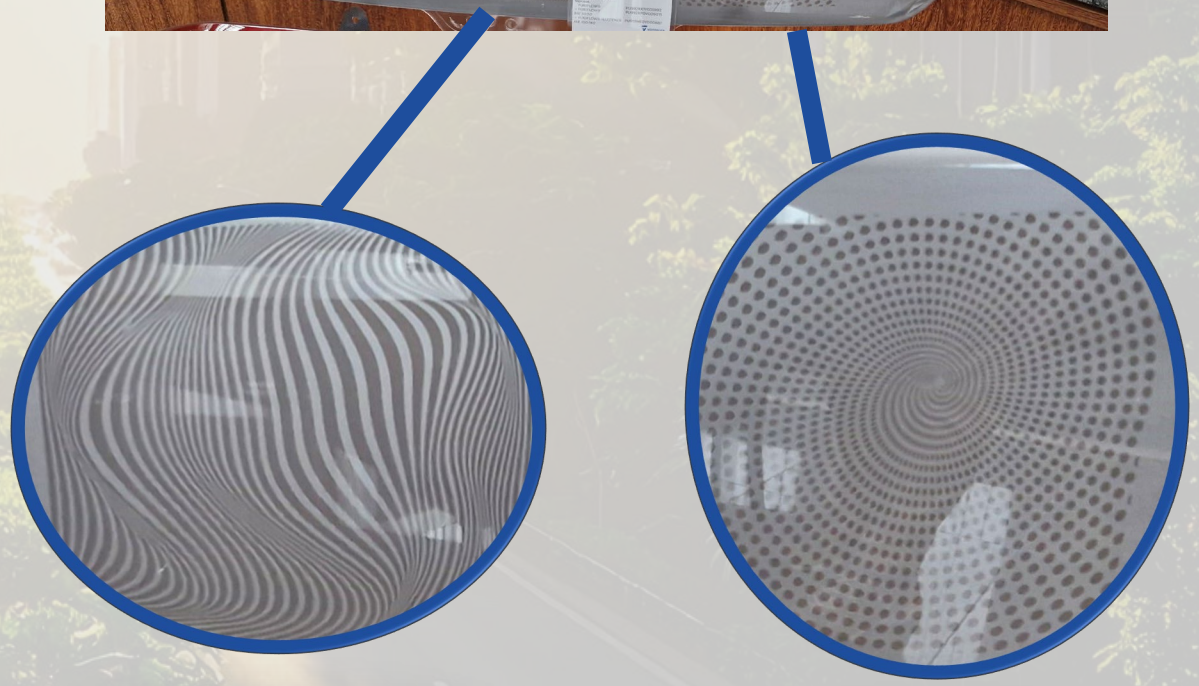
PURIFLOW® – Colored applications

- Substrate:
  - Makrolon® AG2677
- Topcoat:
  - PURIFLOW® PU992
    - Shore D72
    - High scratch resistance
    - TG @ > 40°C
    - High chemical resistance
- Options:
  - Color- and effect-pigments
  - Gloss level
  - Post-process individualization (laser)

Lasered PURIFLOW®

PURIFLOW can also be lasered with Logos and Patterns. Great feature for lighting applications!



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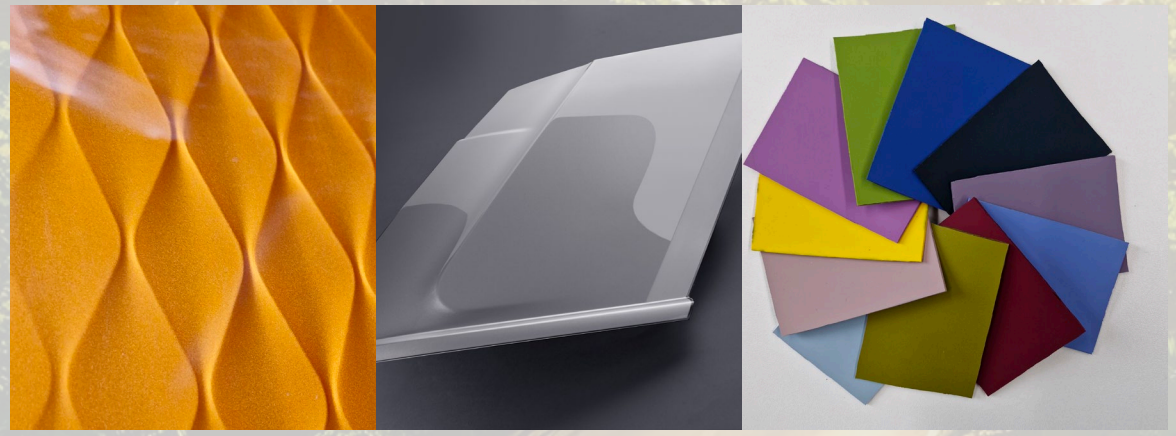
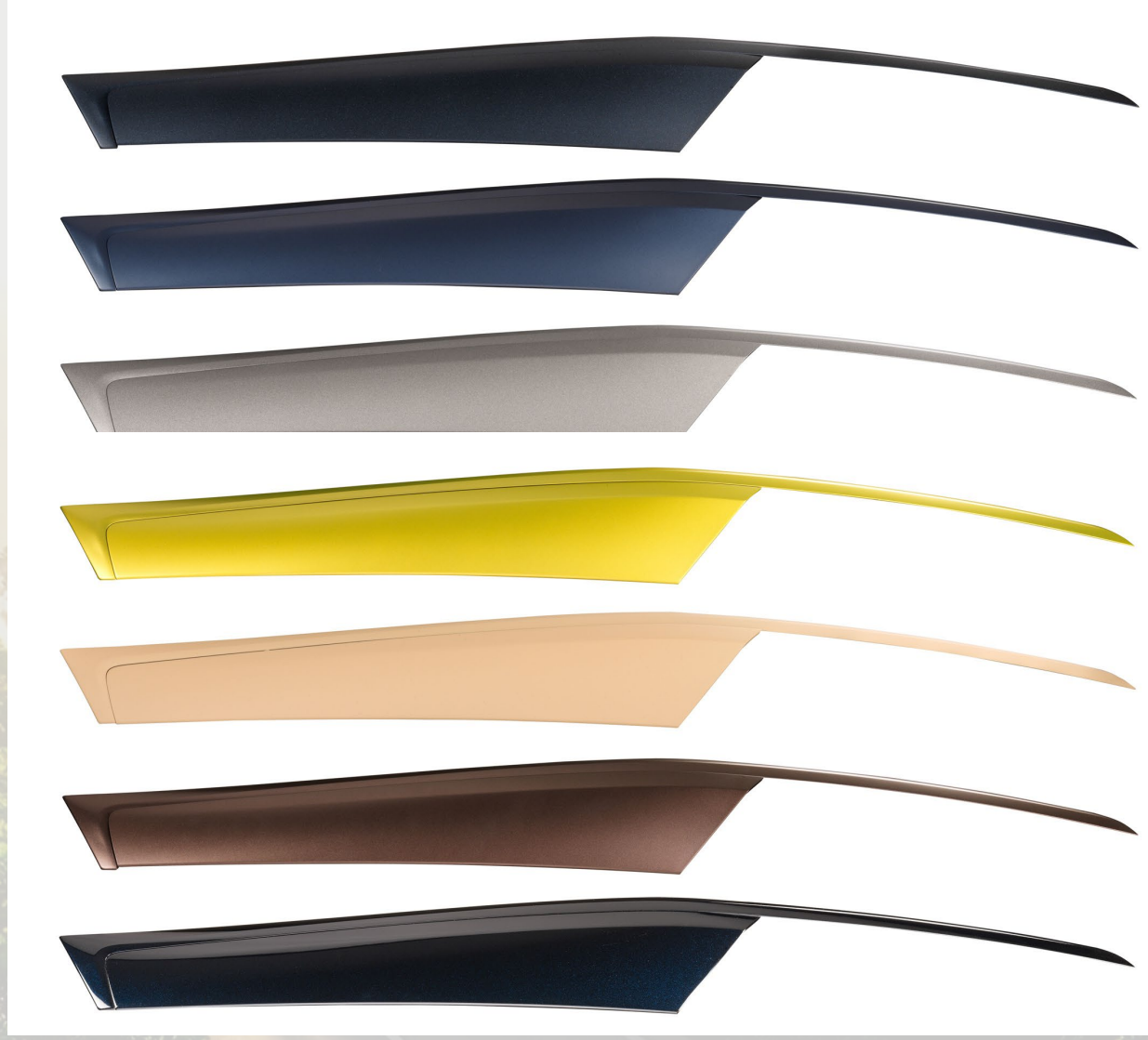
The Art of Color Creation:

Precision meets Craftsmanship

A consistent appearance achieved through understanding of:

- Color fastness
- Gloss/Texture
- Effect control
- Application method





Future of Exterior Design

Innovation Ahead

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Thank you for your attention!

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