Case Study

TPSiV® 5500: Luxury Soft Touch Automotive Interiors

TPSiV® elevates vehicle interiors with unmatched softness, durability, and design freedom.

Challenges

The automotive interior market faces rising expectations for comfort, aesthetics, and durability, while meeting stringent safety and sustainability standards.

- **Increasing demand for premium vehicles:** Consumers expect high-quality, luxurious interiors in modern vehicles.
- **Enhanced comfort and aesthetics:** Materials must deliver a soft touch, refined feel, and visually appealing surfaces.
- **Durability and performance requirements:** Interior components like steering wheels, armrests, and door panels need long-lasting resistance to wear, UV exposure, and chemicals.
- **Safety and compliance:** Materials must comply with evolving regulatory standards for safety and environmental performance.
- **Consumer preferences:** There's growing demand for sustainable, recyclable, and aesthetically superior interior solutions.

Solutions

TPSiV® elevates the tactile experience of automotive interiors as a high-performance solution that balances luxury, durability, and design flexibility.

- **Unique soft touch:** Delivers a silky feel.
- **Simplified process:** No post-treatment required.
- **Durability:** Exceptional resistance to UV damage, abrasion, and chemicals ensures long-lasting performance.
- **Personalization:** Flexible design options with colorability, laser marking, and molding for complex parts.
- **Adhesion:** Excellent bonding to thermoplastics like PP, PA, and PC/PC ABS for reliable integration.
- **Easy to clean:** Chemical-resistant surfaces withstand dust and stains for effortless maintenance.
- **Sustainable:** Reprocessable, recyclable alternative to traditional interior wrapping materials.

Ideal applications: Back seat covers, premium soft-touch wrapped surfaces, fixings, scroll rolls, sealings.

Introducing TPSiV® 5500

TPSiV® 5500 is an olefin-based solution that combines a uniquely soft, dry touch with unparalleled durability. Its 2K molding compatibility allows it to be overmolded directly onto polypropylene (PP) substrates, creating luxurious, high-performing surfaces in a single production step. This eliminates the need for separate vinyl wrapping or painting—simplifying the manufacturing process while reducing material use, production time, and waste. TPSiV® 5500 delivers a premium tactile experience and provides a recyclable alternative to traditional interior finishes.

Property	Standard	Unit	Value
Hardness	ISO868	Shore A	75
Flow length (5 MPa)		cm	50
Tensile strength (cross flow)	ISO 37-2	MPa	6
Elongation at break (cross flow)	ISO 37-2	%	580
Tear resistance	ISO 34/B/A	kN/m	40
DRC - Compression set 23°C/24h	ISO 815	%	26
DRC - Compression set 70°C/24h	ISO 815	%	54
Gravimetric fogging	SAE J1756 (8/06)	mg	1.2
Photometric fogging	SAE J1756 (8/06)	-	Pass
Flammability	49 CFR 571.302 (FMVSS302)	-	Pass
Horizontal burn rate	49 CFR 571.302 (FMVSS302)	mm/min	57
Product features			
UV resistance			✔✔
Scratch & abrasion resistance			✔
Stain resistance (static & dynamic)			✔✔
Skin contact compliance**			✔
Food contact compliance**			✔
Bonding / chemical compatible			Polyolefin

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Benefits

- **Design freedom:** Works with standard processing technologies for complex geometries.
- **High flow:** Fills large and complex parts efficiently, ensuring consistent quality.
- **Durable and scratch resistant:** Meets interior automotive UV exposure requirements.
- **Soft touch luxury:** Hardness range 60–75 ShA provides a premium feel.
- **Sustainable alternative:** Supports circular economy goals by replacing vinyl/paint.
- **Processing versatility:** Suitable for injection, extrusion, and co-extrusion applications.

Explore the full range of TPSiV® solutions and match the right material to your application using our Product Selector Guide.

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