



TPO 2025

Global Automotive Conference

Elevating the In-Car Experience with Backlit Surfaces

David Gomez– Sept. 9



ANTOLIN





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by Antolin

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Backlit Coverings

Lighting Portfolio

INTERIOR LIGHTING

Overhead Consoles

Front Central Overhead consoles with switching, touch, lighting, cameras, storage and complex electronic functionalities



Interior Lighting

Ambient Lighting

for complete cabin spaces. Static or Dynamic lighting for different scenarios, including control electronics



Interior Lamps

Overhead and side reading lamps, with touch controls and adjustable lighting function



Illuminated Surfaces

Suitable for all surfaces: TPO/PVC, artificial leather, perforated real leather, Alcantara, textile...



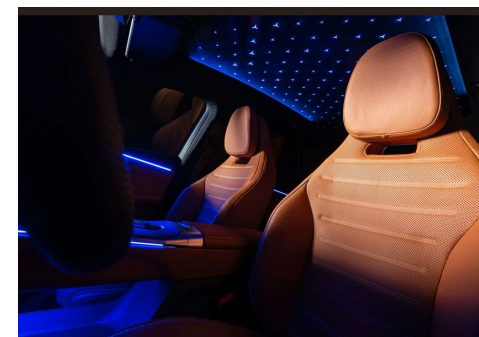
Multi purpose lamps

Small lamps for glove box, footwell, puddle light, SV vanity mirror, trunk...



Lighted Glass

Static or Dynamic lighting solutions for glass sunroofs.



Lighting Portfolio

EXTERIOR LIGHTING

Projectors

Static and semi-dynamic projectors for exterior and interior applications



Exterior Lighting

Charging Indicators

Auxiliary systems for EV charging ports, enhancing visibility and switching functionalities



License Plate Lamps

Exterior licence plate lighting



Lighted Emblems

adds a new dimension to vehicle branding



CHMSL

Central High Mounted Breaking Lights

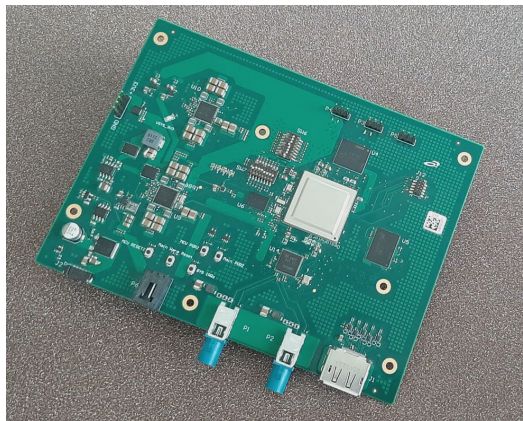


Lighting Portfolio

HMI & ECUs

Hubs & Gateways

Communication hubs & gateways offering high-speed data transmission rates for new applications and networks



HMI & ECUs

Other ECUs

Custom ECUs for specific applications such as power recharger lids, PDLC films, and electronic air vents



Smart Surfaces

Integrating touch controls, decorative elements, display integration, and haptic feedback for next-generation smart surfaces



Lighted Surfaces on interior Trim

ANTOLIN LIGHTING INTEGRATOR



Fully Integrated Lighting System

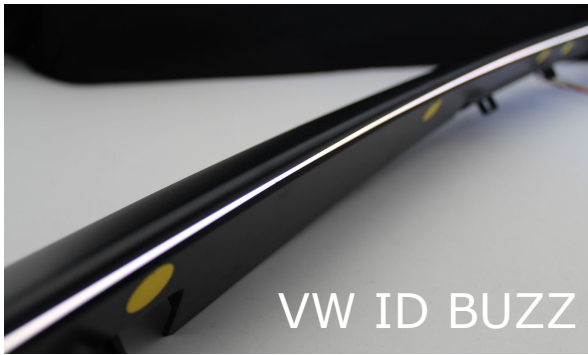


Backlit Surfaces

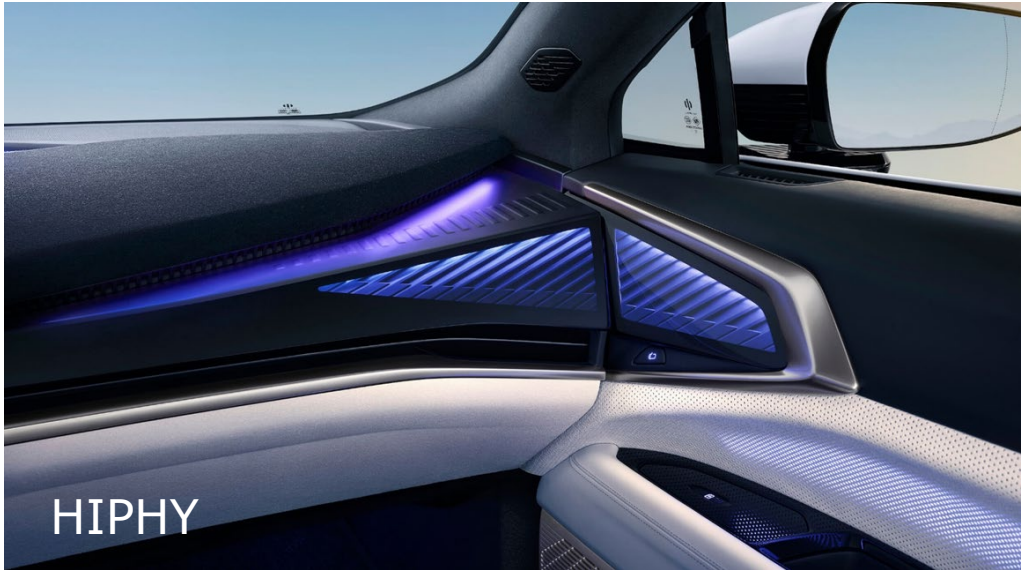
ANTOLIN SERIAL PRODUCTION



BMW IX



VW ID BUZZ



HIPHY



PEUGEOT 3008e



VW ID BUZZ



LOTUS ELETRE



LOTUS ELETRE



ALFA ROMEO TONALE



LOTUS ELETRE

Seamless Light: Backlit Surfaces

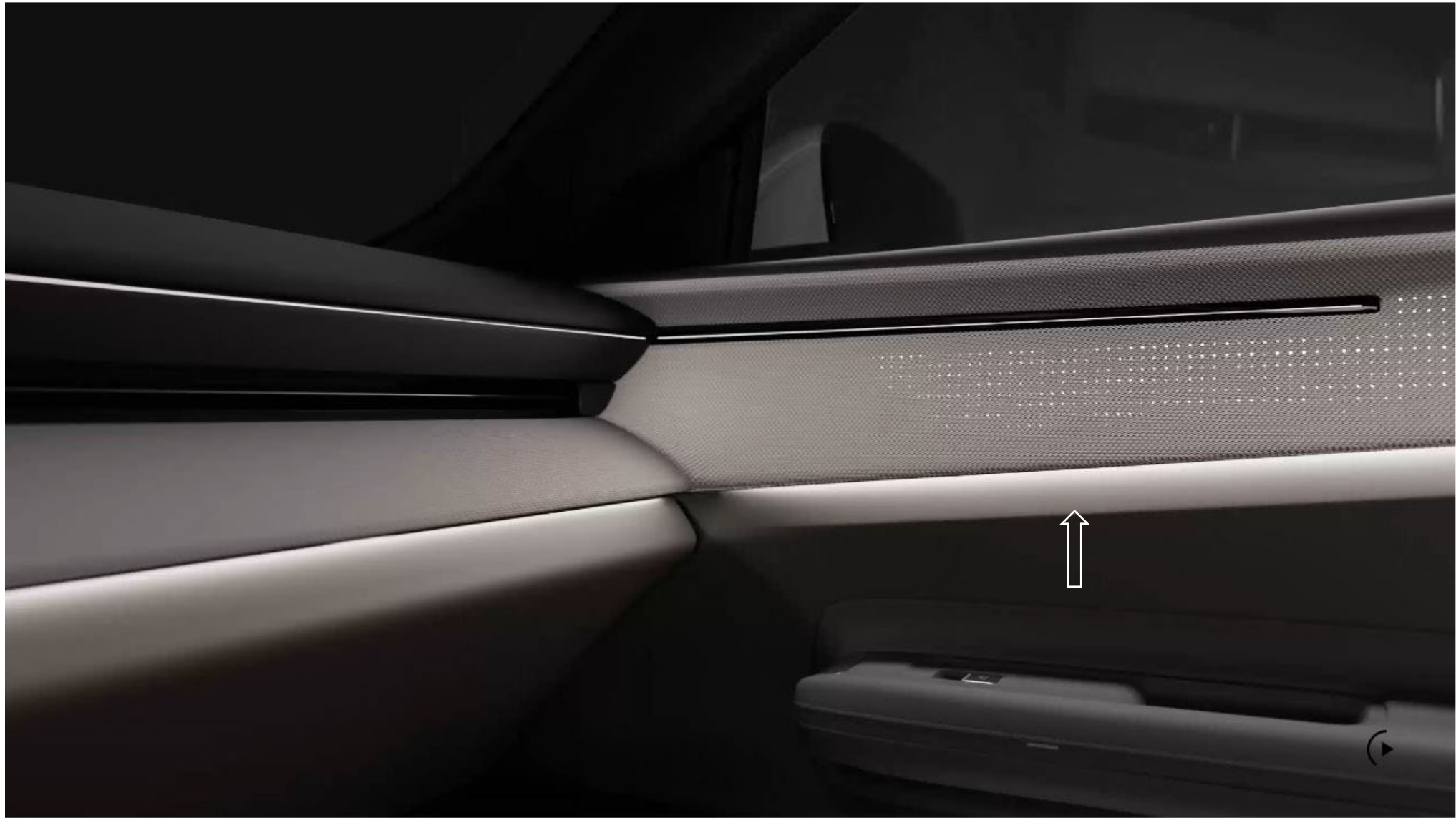
ANTOLIN SERIAL PRODUCTION



CUPRA TERRAMAR
BACKLIT EDGE LIT SLIM w/ PERFORATED VINYL

Seamless Light: Backlit Surfaces

ANTOLIN SERIAL PRODUCTION



POLESTAR 4
BACKLIT EDGE LIT w/ KNITTED FABRIC

Seamless Light: Backlit Surfaces

ANTOLIN SERIAL PRODUCTION



ZEEKR 001
BACKLIT EDGE LIT w/ SUEDE PERFORATED

Seamless Light: Backlit Surfaces

ANTOLIN SERIAL PRODUCTION

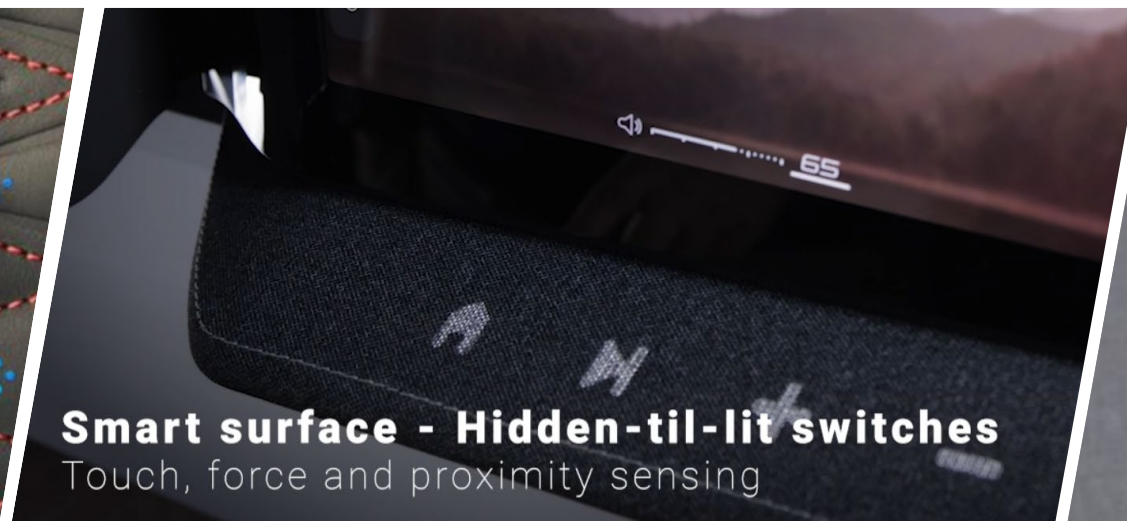
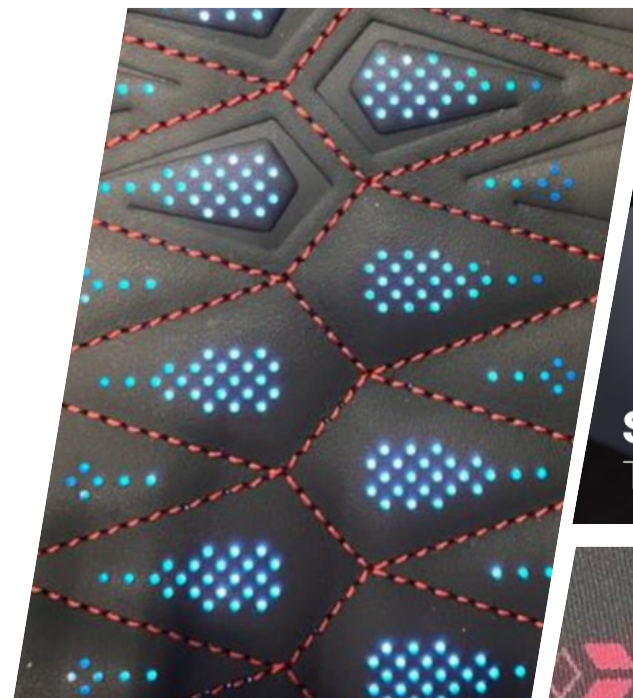


ALFA ROMEO TONALE
BACKLIT EDGE LIT w/ HARD DECO

Seamless Light: Backlit Surfaces

ANTOLIN CAPABILITIES

EXPERTS IN COVERINGS



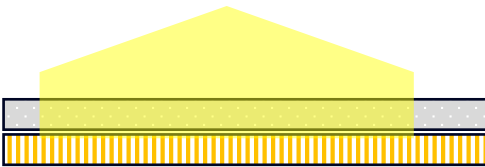
- Translucent TPO
- Translucent Vinyl
- Fabrics
- Perforated material
 - Knitting
- Spacer Fabrics -
 - Optic Adhesives



Sustainable covers:

- Persiskin
- Recycled PES
- Monomaterials

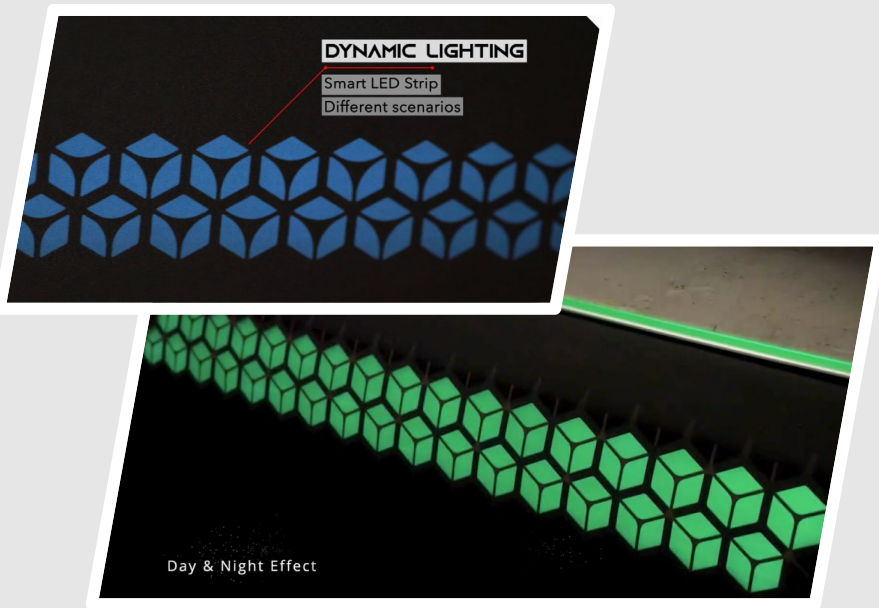
LIGHT TRANSMITTANCE



- LIGHT TRANSMITTANCE +

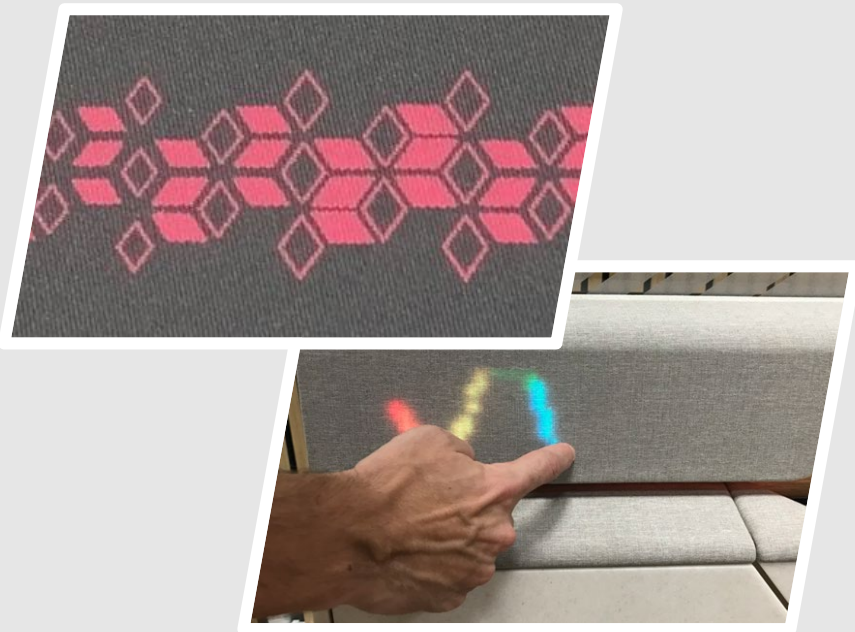
Translucent TPO & Vinyl

<5%



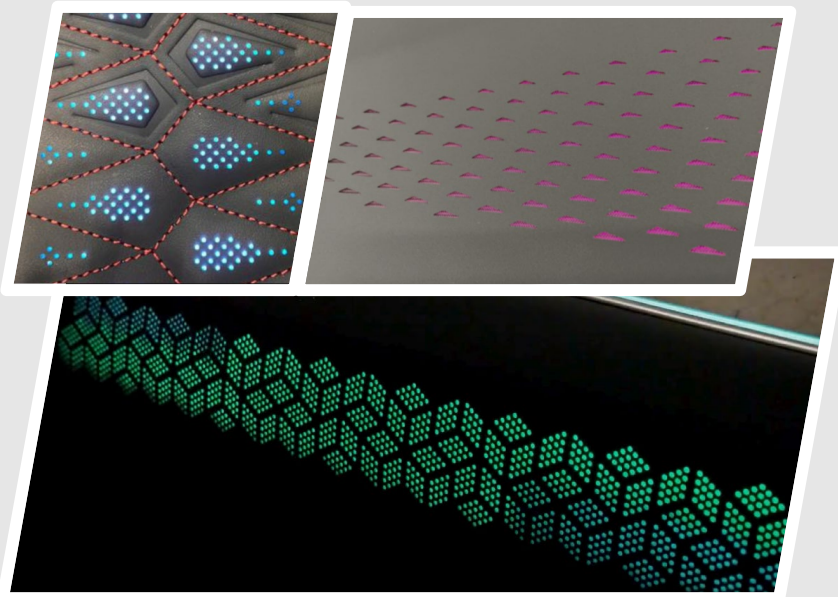
Fabrics (w/Backing)

5% – 20 %



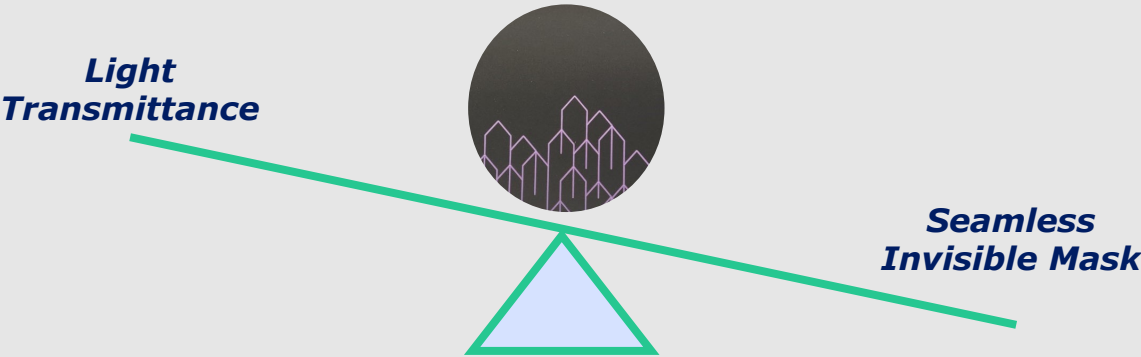
Perforated Coverings

NA



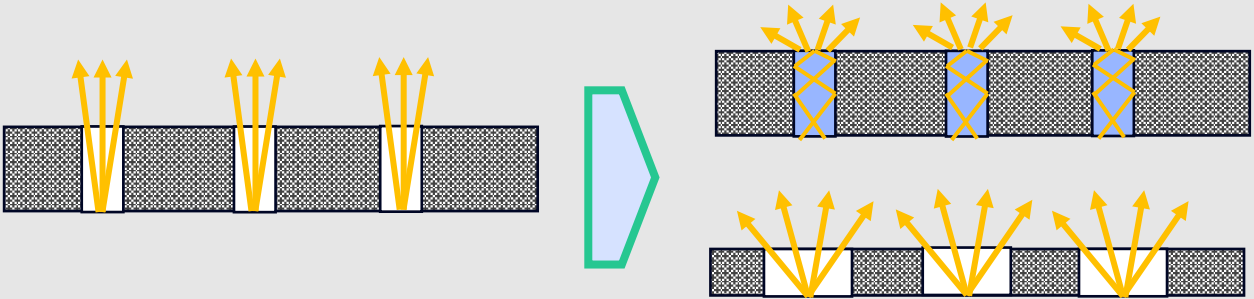
KEY FACTOR OF COVERING FOR BACKLIT

Light Transmittance Vs Invisible Till Lit



Clear Colour has a better Light Transmission but more challenging to avoid visible mask.

View Angle



Thinner material or larger perforation helps to increase view angle. Perforation Filled also helps increase view angle, but the process increases the price of solution

Contrast Lighting Colour vs Covering Colour (Day-Time)

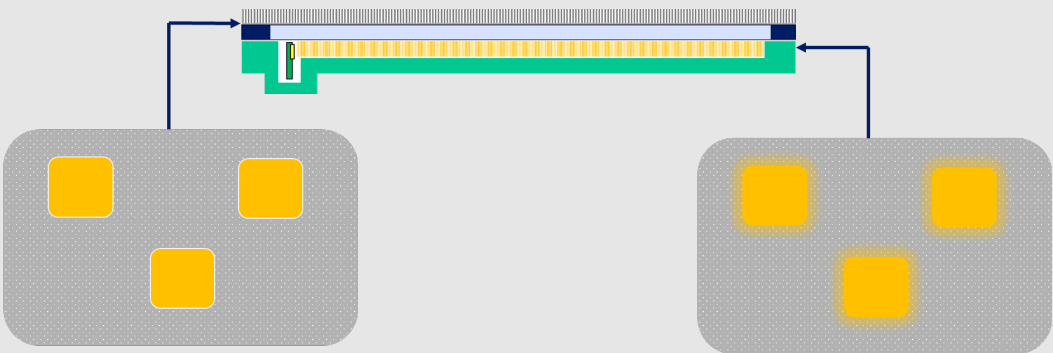
DAY TIME - 150cd/sqm



DAY TIME - 700cd/sqm



Mask Position



SHARP DEFINITION PATTERN
The mask must be located as close as possible to the top surface.
IF SOFT TOUCH IS REQUIRED, MASK MUST BE APPLIED ON B SIDE OF TOP COVERING (Digital Printing, Roll Transfer..)

BLUR DEFINITION PATTERN
The mask must be placed in a deep layer of system.

Seamless Light: Backlit Surfaces

DEEP DIVE COVERINGS for BACKLIT

TRENDS TO BE CONSIDERED FOR COVERINGS



3D GEOMETRIES

Material & Covering
Process compatibles

INTEGRATION OF SENSING (touch & force)

Touch Resistance of
Surface

COMBINATION LIGHTING & GRAPHICS

Combination Mask B Side
& Graphics on A Side

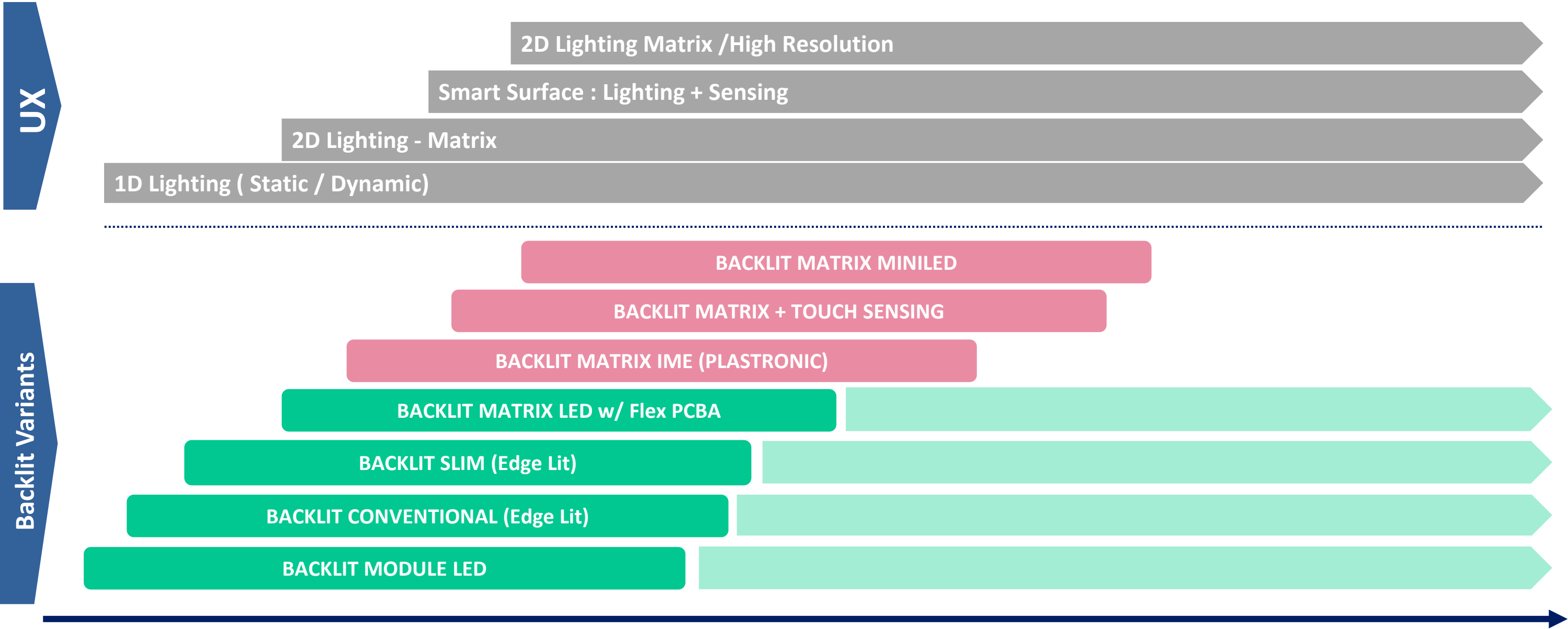
SUSTAINABILITY- MONOMATERIAL

Product Definition of Insert
Trim (Bracket + Adhesive +
Soft Material + Covering)

Seamless Light: Backlit Surfaces

BACKLIT TECHNOLOGIES

ANTOLIN BACKLIT ROADMAP Illuminated Surfaces

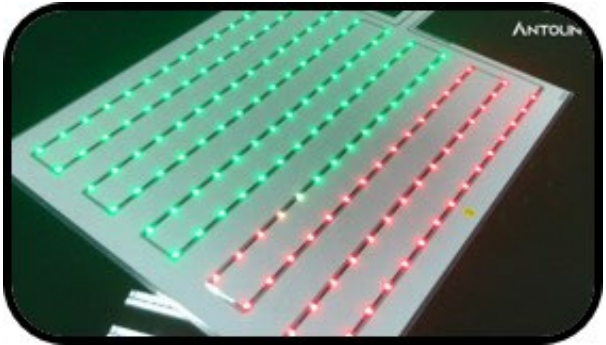


Ready for RFQ

Not Ready for RFQ yet

Seamless Light: Backlit Surfaces

BACKLIT TECHNOLOGIES



	BACKLIT CONVENTIONAL EDGE LIT	BACKLIT SLIM EDGE LIT	BACKLIT MODULE LED	BACKLIT MATRIX LED w/ Flexible PCBA	BACKLIT MATRIX IME IME Direct	BACKLIT MATRIX miniLED On Top Surface (Digital Lighting)
SCHEME						
COMPATIBLE WITH ALL COVERINGS?	YES	NO <i>Limited to Covering with Soft</i>	YES	YES	YES	<i>In Evaluation</i>
LIGHTING EFFECT	1D	1D	0D Static	2D <i>Matrix - Low Resolution</i>	2D <i>Matrix - Low Resolution</i>	2D <i>Matrix - High Resolution</i>
GEOMETRY OF LIGHTED SURFACE	3D	3D	3D	2.5D <i>3D with limitations</i>	3D	2.5D
VISIBLE during DAYTIME / FUNCTIONAL LIGHTING <small>*For covering with Light Transmission less than 60%</small>	NO	NO	NO	YES	<i>In Evaluation</i>	YES
PACKAGING LIGHT ENGINE (w/o covering)	10 mm	5mm	10mm	10mm	7mm	5mm
LUMINANCE LIGHT ENGINE (before covering)	100-200 cd/sqm	100-200 cd/sqm	50-100 cd/sqm	5000-10000cd/sqm	5000cd/sqm	>10000cd/sqm
MATURE OF TECHNOLOGY	<i>Ready for RFQ</i>	<i>Ready for RFQ</i>	<i>Ready for RFQ</i>	<i>Ready for RFQ</i>	<i>Technical Feasibility: OK</i> <i>Industrial Feasibility : In progress</i>	<i>Technical Feasibility: In progress</i> <i>Industrial Feasibility : In progress</i>

Seamless Light: Backlit Surfaces

ANTOLIN NextGEN

UX UPGRADED: MATRIX BACKLIT & SENSING



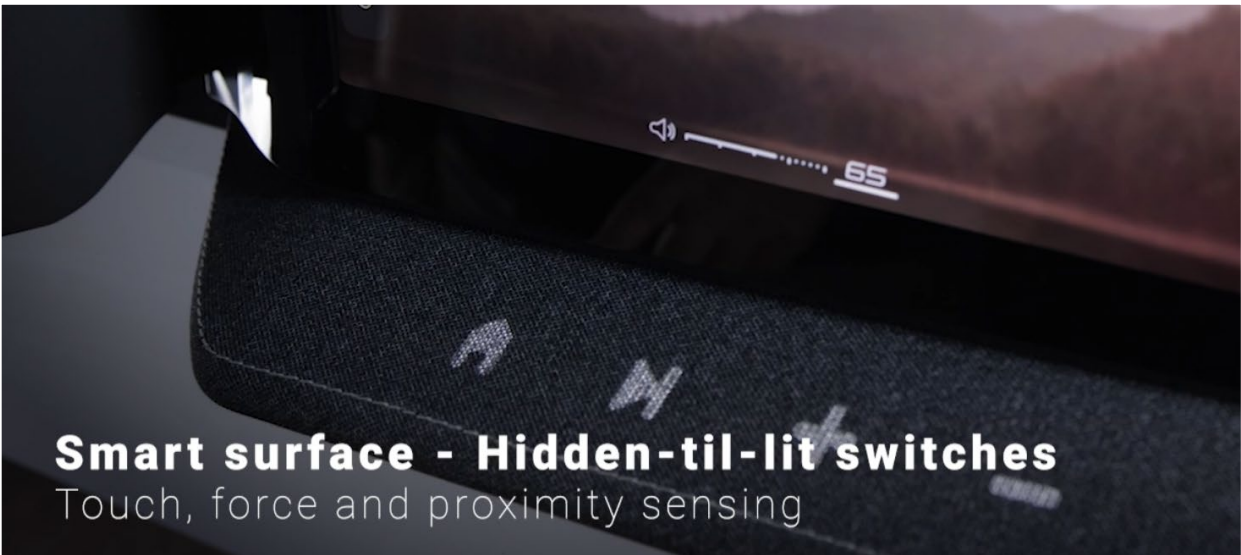
BACKLIT MATRIX LED w/ FABRIC



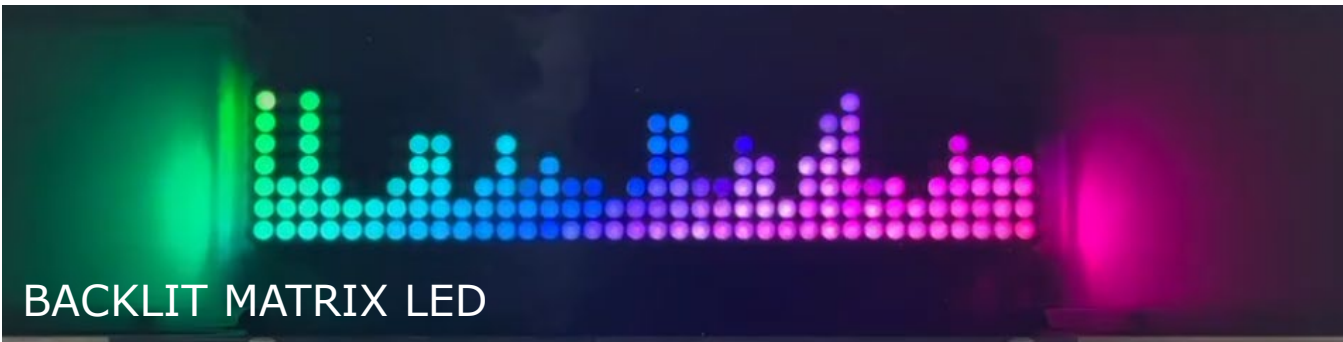
BACKLIT MATRIX w/
TOUCH SENSING



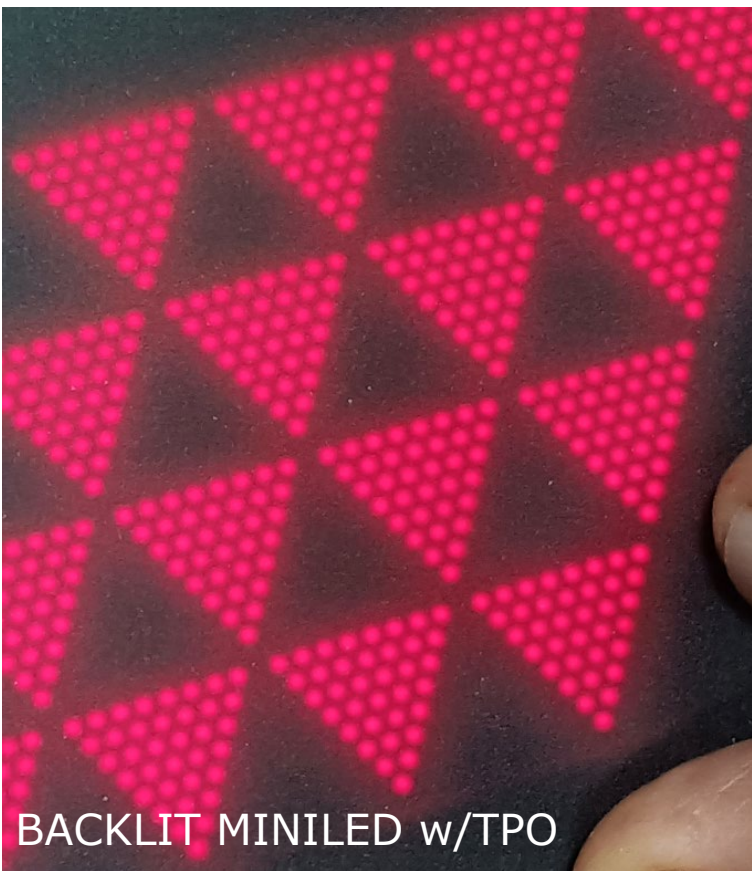
Emotional lighting – Backlit matrix
Dead front effect



Smart surface - Hidden-til-lit switches
Touch, force and proximity sensing



BACKLIT MATRIX LED



BACKLIT MINILED w/TPO

Seamless *Light: Backlit Surfaces*

Antolin NextGEN

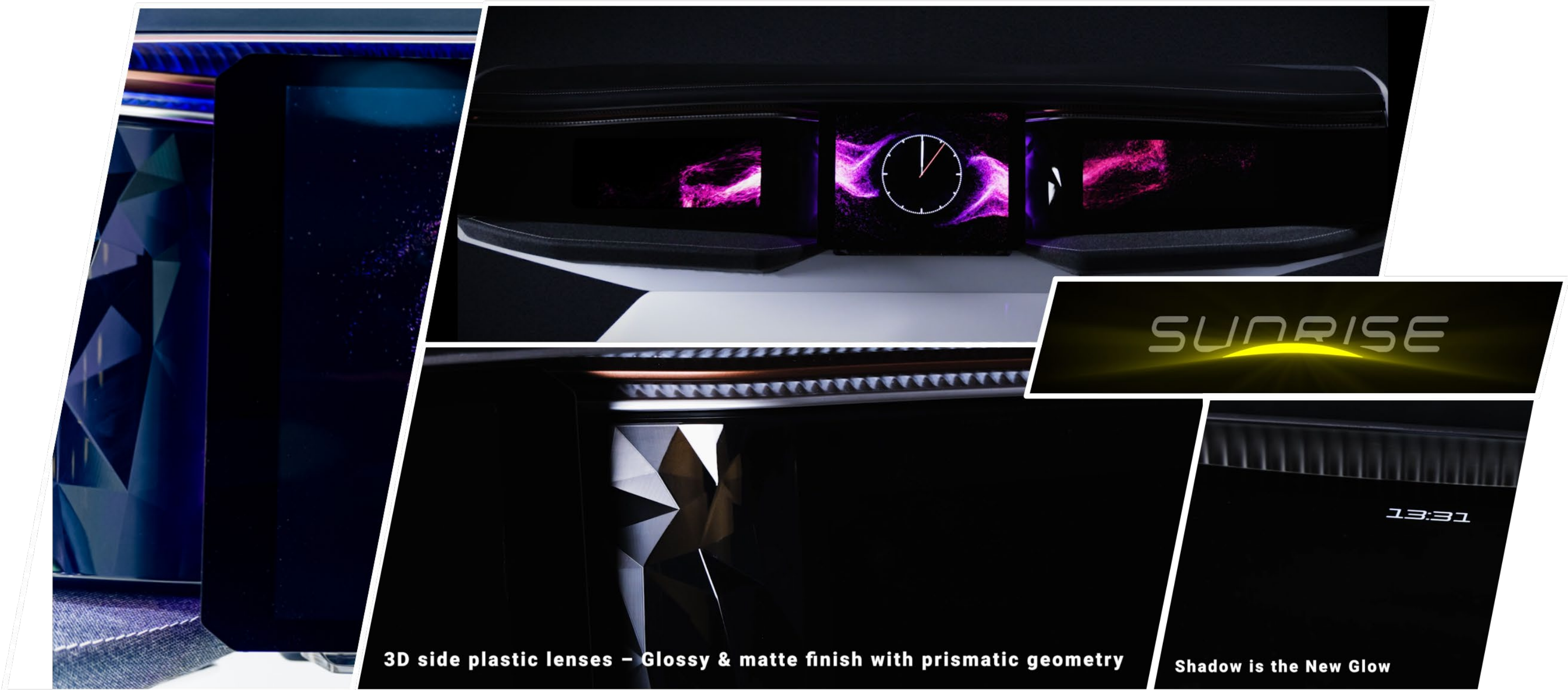
IMMERSIVE EXPERIENCE: PHYGITAL



Seamless Light: Backlit Surfaces

ANTOLIN NextGEN

SHADOW IS THE NEW GLOW



3D side plastic lenses – Glossy & matte finish with prismatic geometry

Shadow is the New Glow

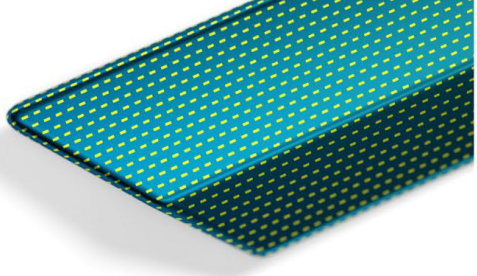
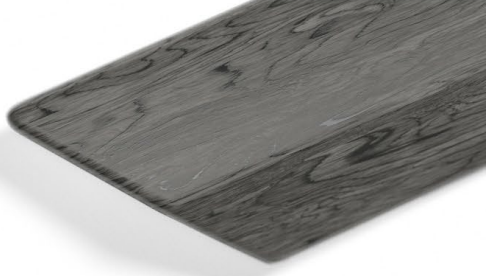
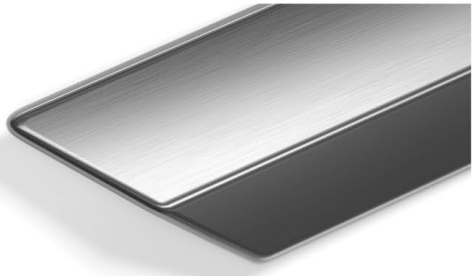
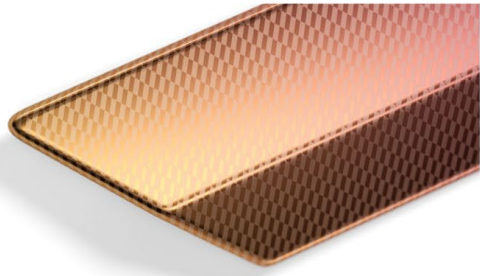
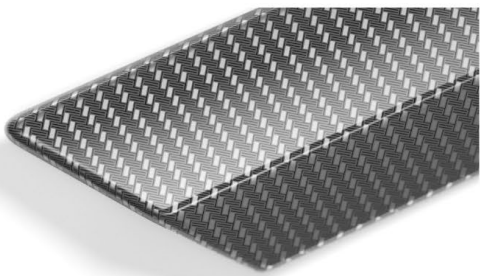
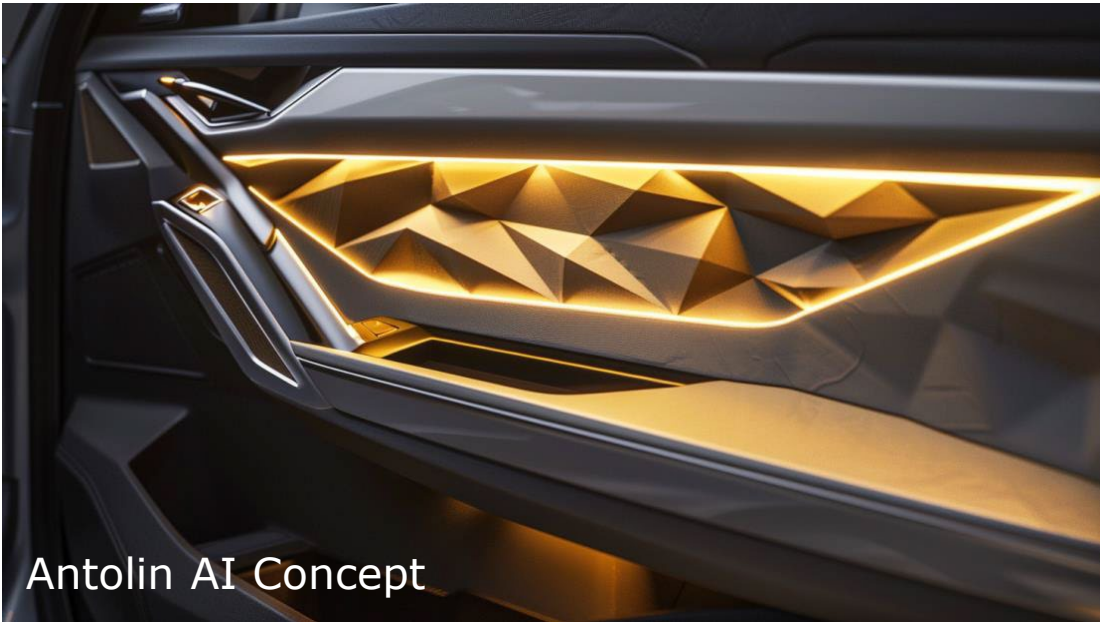
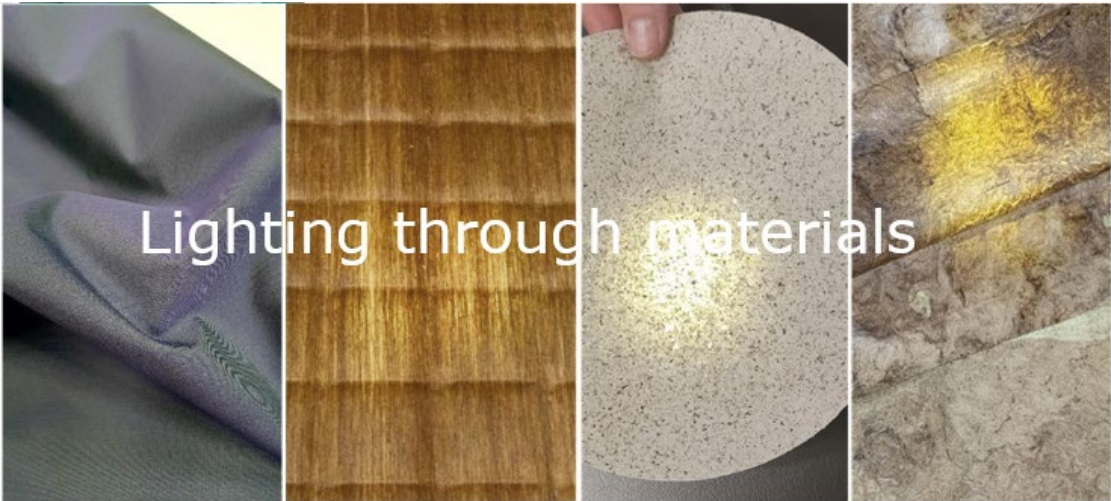
Seamless Light: Backlit Surfaces

ANTOLIN NextGEN

3D EFFECT THROUGH MATERIALS

Experts in 3D Illumination

Antolin integrates 3D-molded parts, stone, cork, and sustainable materials to deliver optimal illuminated surfaces.



Walter Pack New Designs



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