

# DRIVING THE FUTURE OF AUTOMOTIVE SEATING: EVOAIR™ POE Leather



## The opportunity

Demand for stylish, sustainable seating

### Design

Today, car interiors are becoming a 'third space' where people expect the same level of style and comfort they enjoy at home. This is driving growing demand for seating leather with a luxurious feel, which can be produced in lighter colours.

### Sustainability

There is also a growing focus – both by the public and the regulators – on the sustainability of the materials used in cars: increasingly, people expect seating leather to be non-animal-based, lightweight, low-carbon and environmentally safe.



Consumer behavior and expectation: more of a third space than a car

Lighter colors for a feeling of home

## Our solution

### EVOAIR™ POE\* Leather

Dow has developed EVOAIR™ POE Leather, a groundbreaking polyolefin-based material that offers both high performance and a range of design, safety and sustainability benefits:

#### Design

- Can be produced in light colors
- Exceptional color stability
- Can be embossed with patterns as a thermoplastic material
- Weathering resistance

#### Performance

- Smooth soft finish
- Excellent low-temperature performance
- Improved durability

## Evolution

advanced  
imaginative  
refined

#### Sustainability

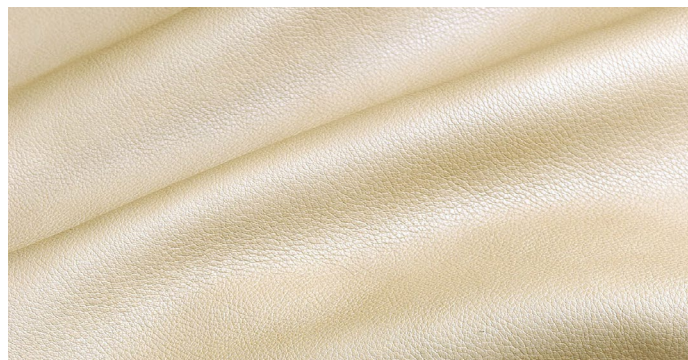
- Lightweight (25% to 40% lighter than PVC leather)
- Non-animal origin

#### Safety

- Low VOCs/odor
- Non-intentionally addition of hazardous chemicals, plasticizers and heavy metals
- Comply to U.S. FDA & China Food Contact Compliance

\*POE: Polyolefin Elastomer

## Typical structure of EVOAIR™ POE Leather Solutions



## Performance of EVOAIR™ POE Leather Solutions

Property	POE leather	PVC leather	PU leather	Microfiber PU leather	Genuine leather
Density g/mL Leather g/m <sup>2</sup>	~0.8 ~600	~1.4 ~900	~1 ~750	~1 ~800	1.3-1.5 ~1000+
Embossment	Thermal pressing	Thermal pressing	Transforming	Transforming	Thermal pressing
Flexibility -30°C	+++++	+++	++++	++++	+++++
Plasticizer/Solvent/ Tanning Agent	None	Plasticizer	Solvent	Solvent	Tanning agent

\*Typical values, not to be construed as specifications. Users should confirm results by their own tests.

## LCA

From a third-party life cycle analysis based on ISO methodologies, the carbon footprint cradle to gate of submitted POE leather sample is

# 3.05 kgCO<sub>2</sub>e

per m<sub>2</sub> of material. Analysis method: IPCC 2021 GWP 100a  
LCA software and database: LCA for Experts / LCA for Experts  
10.7.1.28, Ecoinvent 3.10.





## Further sustainability of interiors

To help our customers design interiors that's not only low VOC/odor and lightweight, we have developed circular and bio-circular versions of EVOAIR™ POE Leather Solutions, helping reduce the use of virgin fossil resources.

	<b>Evoair<sup>CIR</sup></b> POE leather solutions	
Recycled Polymers / Circular Feedstocks	Circular option	New Vehicles
	<b>Evoair<sup>REN</sup></b> POE leather solutions	Interiors
Bio Feedstocks	Bio option	Synthetic leather for seating and overall interiors
Polyolefin elastomers (POE) made with bio-circular feedstocks produced from residues of other industries, reducing the use of virgin fossil resources		
No food/feed competition	Certified sustainable forestry/farming	Plant-based POE resins are ISCC+ certified
Identical performance to virgin material: <b>No requalification needed</b>	Supporting CO <sub>2</sub> reduction versus fossil fuel-based equivalent	

## Our wider MobilityScience™ sustainability strategy

Designing for decarbonization and circularity of seat materials is just one of the ways that we're helping to build a sustainable future that supports resilient, low-carbon mobility.

Innovating across the full range of mobility challenges, we're committed to driving sustainability in three key areas: climate protection, safer materials, and circular economy. Our offerings span the entire lifecycle of automotive plastics – from their Design to their Production, Use and End-of-Life.



## Let's talk

With longstanding experience in POE innovation, we're excited to bring this breakthrough material to the automotive industry, and are eager to collaborate with customers across the automotive value chain, as we continue to innovate for a sustainable future.

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