# EcoLamix™

Advanced Thermoplastic Fiberglass Composites
Sheet for Truck bodies & Caravan Liners







## EcoLamix™

### Advanced CFRT Structural Laminate

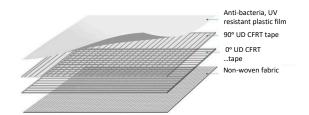
EcoLamix™ is manufactured using CFRT (Continuous Fiber Reinforced Thermoplastic) thin sheets — an advanced composite technology engineered for exceptional strength and durability.

Each sheet is built from multiple layers of lightweight CFRT, arranged in 0° and 90° fiber orientations to create a high-strength, waterproof, and impact-resistant structural core.

The top surface features a specially formulated UV-resistant thermoplastic film, providing lasting weather protection, anti-fouling, and antibacterial performance.

The bottom surface is reinforced with a woven scrim layer, enhancing bonding between the foam core and the EcoLamix™ skin during sandwich-panel lamination — ensuring optimal adhesion and long-term reliability.

Together, these elements make EcoLamix™ a next-generation structural laminate designed to withstand the toughest environmental and mechanical challenges while maintaining lightweight efficiency — the ideal skin material for caravan panels, freezer and insulated truck body liners.







Proven in thousands of refrigerated truck trailers, caravans, and mobile cold-chain systems across North America and Asia, EcoLamix™ CFRT sheets deliver lasting value through:

- Lighter weight for improved fuel efficiency and payload capacity
- High impact resistance against forklifts and moving equipment
- Moisture-proof and thermally insulated for optimal cargo protection
- Anti-bacterial, mold-resistant, and compliant with food safety standards
- Zero styrene emissions and no odour for a cleaner, safer environment
- 100% recyclable and environmentally sustainable



## EcoLamix™

## Deliver Superior Performance in Every Dimension

EcoLamix<sup>™</sup> delivers unmatched mechanical and thermal performance, setting a new benchmark for next-generation composite laminates.

#### 1. Superior Tensile Properties & Lightweight Design

With a tensile strength up to 150% higher and modulus 30–60% higher than conventional FRP sheets — while being 30–40% lighter — EcoLamix achieves remarkable strength-to-weight efficiency.

#### 2. Higher Impact Resistance & Energy Absorption

Even at reduced thickness, EcoLamix exhibits significantly greater impact resistance and energy absorption than gel-coat FRP. Its ductile thermoplastic resin matrix offers higher elongation at break (2.5% vs. 1.5% for FRP), combining flexibility with toughness for superior moisture-proof and insulating performance.

#### 3. Exceptional Peel Strength

An integrated non-woven reinforcement layer within the back surface enhances bonding with foam cores during lamination, ensuring strong interlayer adhesion and reduced delamination risk under extreme loads and temperature fluctuations.

#### 4. Enhanced Thermal Stability

With lower CTE (Coefficient of Thermal Expansion) and lower thermal conductivity than gel-coat FRP, EcoLamix maintains dimensional stability and higher thermal efficiency, reducing deformation and energy loss across wide temperature ranges.

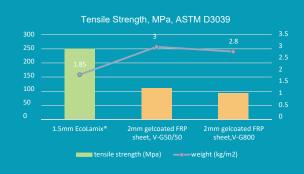
#### 5. Hygienic, Safe & Easy to Maintain

EcoLamix features a 99% antibacterial and mildew-resistant surface (ISO 22196-2011), FDA-compliant materials verified by SGS, zero styrene odour, and a low-energy surface (Dyne < 38) for excellent stain resistance and easy cleaning — ideal for food-grade and hygienic transport applications.

#### **SPECIFICATIONS**

Properties	Test Standard	S.I. Unit	KP-1.0	KP-1.5	KP-2.0
Area Weigh		kg/m²	1.03	1.85	2.63
		lbs/sq. ft.	0.21	0.38	0.54
Thickness		mm	0.9	1.5	2.0
		in.	0.035	0.060	0.080
Multi-Axial Impact Strength	ASTM D3763	m-kg	0.7	1.0	1.5
		ft-lbs	5.1	7.2	10.8
Tensile Strength	ASTM D3039	MPa	250	250	250
		ksi	36	36	36
Tensile Modulus	ASTM D3039	GPa	12	12	12
		msi	1.7	1.7	1.7
Tensile Elongation at break	ASTM D3039	%	2.5	2.5	2.6
Coefficient of Liner Thermal Expansion	ASTM E831	10 <sup>-6</sup> /°C	17	17	17
		10 <sup>-6</sup> /°F	9	9	9

Dimensional Tolerance: Length, 0~+2m per 100m; Width, ±3mm; Thickness, ±0.15mm





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