DESIGNED FOR A GREENER TOMORROW

ArmaForm® Eco

Energy-efficient composite sandwich structures are a powerful way of saving energy and reducing CO_2 emissions. This leads to higher and specific requirements to the core material in use, in particular the core's long-term insulating properties and mechanical performance.

www.armacell-core-foams.com

armacell®
ArmaForm®

THE SUSTAINABLE CORE FOR STRUCTURAL INSULATION

ArmaForm® Eco

Armacell is following the growing demand for high-performance insulating materials and offers with ArmaForm Eco a core foam that combines strength, stiffness and thermal insulation with process versatility and design flexibility, as well as outstanding sustainability.

Markets

The use of ArmaForm Eco in wall, roof or floor composite sandwich panels of refrigerated truck bodies prevents energy loss during temperature controlled transportation. Just as it supports heavy cargo loads experienced during loading and dynamic loads during operation.

ArmaForm Eco is a suitable core for all kinds of prefabricated structural insulated panels in the building envelope and internal partitions. In addition to its long-term insulation and structural integrity, additional key benefits are its thermo-formability into curved shape and its versatility with almost any type of finishing options.

ArmaForm Eco in the ecological cycle

Thanks to Armacell's patented r-PET technology, ArmaForm Eco is made from 100% recycled PET, more precisely from recycled beverage bottles, millions of which are in circulation all over the world.

In addition to its sustainable raw material base, ArmaForm Eco is manufactured according to an energy and resource-optimized production process: 100% re-use of material loss and no use of ozone-depleting HFC or CFC blowing agents.

Like all our PET foam products, ArmaForm Eco is fully recyclable at its end-of-life.

TECHNICAL DATA (preliminary)

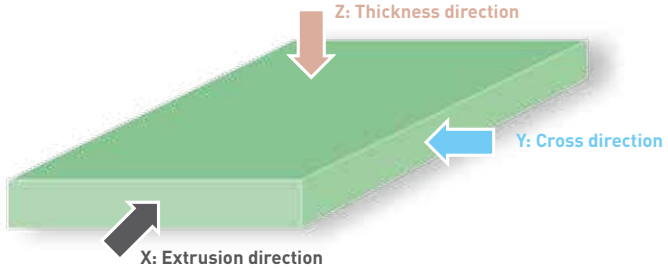
Density	**ISO 845**	kg/m³	48 +/- 10
		lb/ft³	3.0 +/- 0.6
Compression Strength	**ISO 844**	kPa	170
		psi	24.7
Compression Modulus	**ISO 844**	MPa	7
		psi	1,015
Shear Strength YZ	**ISO 1922**	kPa	260
		psi	37.7
Shear Modulus YZ	**ISO 1922**	MPa	4,5
		psi	655
Shear Elongation YZ	**ISO 1922**	%	20
		%	20
Shear Strength XZ	**ISO 1922**	kPa	320
		psi	46,4
Shear Modulus XZ	**ISO 1922**	MPa	7
		psi	1,015
Shear Elongation XZ	**ISO 1922**	%	18
		%	18
Tensile Strength	**ASTM C 297**	kPa	500
		psi	72.5
Tensile Modulus	**ASTM C 297**	MPa	10
		psi	1,450
Reaction to fire	**EN 13501-1**	Class	E

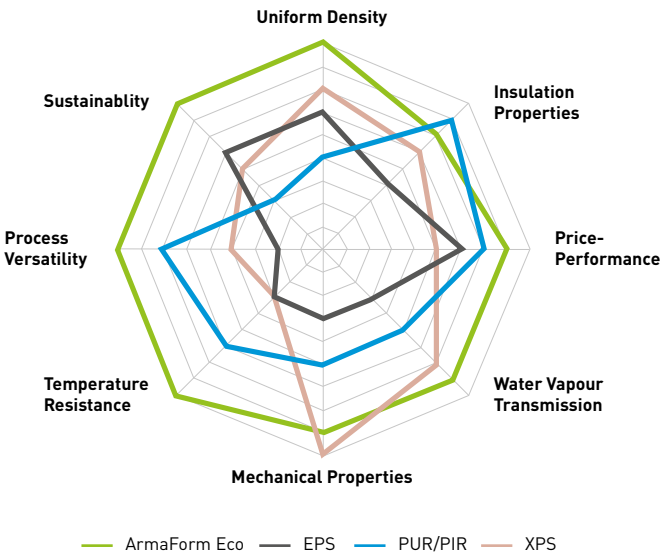
Tolerances

		Length	Width	Thickness
Dimensions	mm	2.445	1.015	50
	inch	96.26	39.96	1.97
Tolerances at room temperature	mm	-7/+20	-12/+5	+/- 0,7
	inch	-0.28/+0.79	-0.47/+0.2	+/- 0.03

Thermal Conductivity EN 12667

W/(m·K)	0,028 (10°C)	0,027 (20°C)	0,025 (40°C)
BTU.in/FT².hr.°F	0.194 (50°F)	0.187 (68°F)	0.173 (104°F)





Primary benefits

// **High water resistance** guaranties stable thermal conductivity even after many years of operation.

// The closed-cell structure minimizes moisture penetration to ensure **long-term corrosion protection** and minimal maintenance requirements.

// Compatibility with various production methods (e.g. infusion or pre-preg) and all common resin systems, as well as **curing temperatures up to +180°C / +356°F**, taking into account individual manufacturing processes and the most varied material combination.

// Its **solvent stability** makes ArmaForm Eco resistant to most acids, salts and fuels.

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ABOUT ARMACELL

As the inventors of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal, acoustic and mechanical solutions that create sustainable value for its customers. Armacell's products significantly contribute to global energy efficiency making a difference around the world every day. With 3,000 employees and 27 production plants in 17 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for high-tech and lightweight applications and next generation aerogel blanket technology.

For more information, please visit:
www.armacell-core-foams.com

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