

# TECHNICAL DATA

# ArmaPET® Curve

ArmaPET Curve is designed for recyclable thermoformable micro sandwich solutions produced in continuous manufacturing processes.

- // 100% recycled material supports industry environmental and sustainability directives
- // Available in large rolls and sheets
- // Micro sandwich solution optimises strength-to-weight ratio
- // Excellent three-dimensional thermoformability
- // Superior temperature resistant solution for automotive interiors



www.armacell-core-foams.com









# ARMAPET CURVE

Is the first 100% recyclable and thermoplastic foil product based on 100% recycled plastics. Superior stiffness and compression combined with chemical and temperature stability characterise our innovative technical solution for thermoforming applications.

### **APPLICATIONS**

The process versatility of ArmaPET Curve allows it **to be used** in a wide range of applications:

#### MICRO SANDWICH

ArmaPET Curve is used as a lightweight thin core in a micro sandwich set-up with fibre-reinforced laminates for applications in building and construction (e.g. cladding panels and shelters) and in the transport market (e.g. HVAC ducts and interiors).

**Key benefits:** system cost performance / freedom of design / sustainability / reduced CO<sub>2</sub> emissions / improved fuel consumption

#### THERMOFORMED PARTS

Its thermoformability allows the creation of various shapes, whether as a part of a micro sandwich or on its own, and ArmaPET Curve is used as a lightweight solution in various markets, such as the automotive sector (e.g. for door water shields and roof liners) and the packaging industry (for packaging protection).

**Key benefits:** elevated thermoforming operating temperature / process versatility / supply in rolls for continuous production process



## PROCESS VERSATILITY

The process versatility of ArmaPET Curve allows it **to be processed** in multiple ways:

#### **THERMOFORMING**

Shaping without cutting the foam, thus eliminating core stress concentration and increased resin consumption.

#### **SURFACE SANDING**

Increasing the surface roughness to improve adhesion.

#### **PERFORATION**

Punching of holes to improve adhesion. Perforation can also allow fibrous felts to stick without applying adhesives.

#### **HEXAGONAL PATTERN**

Helps the resin to flow smoothly and increases peel strength.



# **Technical Data**

# ArmaPET Curve

			Curve 100	Curve 150	Curve 200	Curve 300
Density [1]	nominal	kg/m³	100	150	200	300
		lb/ft³	6.2	9.4	12.5	18.7
Surface Weight	nominal	g/m²	300	375	500	450
		oz/yd²	8.8	11.1	14.7	13.3
Normal Thickness	nominal	mm	3	2.5	2.5	1.5
		in	0.12	0.1	0.1	0.06
Tensile Strength (MD) [2]	ISO 527-3	MPa	2,2	3,3	4,5	8
		psi	319.1	478.5	652.5	1160
Tear Strength (MD) [2]	PSA D41 1126	N	30	30	tbd	30
		lbs	6.7	6.7	tbd	6.7
Compression Strength	ISO 844 at 25%	kPa	170	300	420	650
	deformation	psi	24.7	43.5	60.9	94.3
Compression Strength	ISO 844 at 50% deformation	kPa	310	650	1000	1800
		psi	44.9	94.3	145	261
Operating Temperature	min / max	°C	-40 /+180	-40 /+180	-40 /+180	-40 /+180
		°F	-38 /+356	-38 /+356	-38 /+356	-38 /+356
Fire Testing	FMVSS 302	Compliance w	rith FMVSS 302. C	Customised formu	lations available o	n request.

Values are indicative and can vary depending on actual dimensions and surface weight.

Packaging ArmaPET Curve is available in large rolls and sheets.

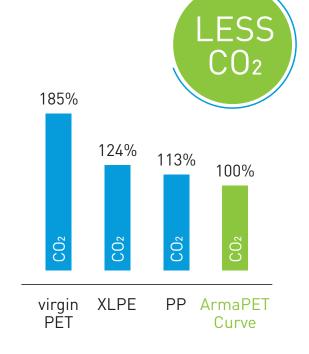
Width: 1080 mm, 1220 mm and 1580 mm / 42.52 inches, 48.03 inches, and 62.20 inches

Customised solutions available on a project basis.

# POSITIVE ECO-BALANCE

As the first 100% recyclable thermoplastic foil product entirely based on recycled plastics, ArmaPET Curve supports the market's drive to provide more sustainable product solutions.

- // Based on 100% recycled post-consumer PET
- // 100% recyclable after use
- // Manufactured in an energy- and resource-efficient production process
- // Production scrap is returned to process and re-used for foam manufacturing to reduce waste
- // Significant CO<sub>2</sub> emission savings



<sup>(1)</sup> Results based on defined surface weight and thickness

<sup>(2)</sup> Machine direction

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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 more than 3,200 employees and 25 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 company information, please visit: www.armacell.com

