

The Global Leader of Inner Core Composite Foam Materials & Solutions

CLARASONIC (THAILAND) CO., LTD.

99/1 Moo 4, T. HOUYYAI, AMPHER MUANG, PHETCHABUN - 67000 THAILAND TEL: 668-1753-0298, Tax ID No. 0675552000085

ARMACELL - ECO FRIENDLY R-PET Rigid Foam & Film

Description: ArmaForm GR® is a Green Friendly Polyethylene Terephthalate (PET) foam made from recycled plastic bottles.

Characteristics:

- Excellent fatigue properties
- High temperature resistance
- Limited density variation
- Process versatility
- Thermoformability

Applications:

Wind energy, rail and road transport, marine, building construction and performance auditoriums.

Technical Specifications:

			GR70	GR80	GR100	GR115	GR135	GR150	GR200	GR250 ⁽¹⁾	GR320 (1)
Density	ISO 845	kg/m ^g	70 ⁽²⁾	80 ⁽²⁾	100 🖾	115 ∅	135 ∞	150 ≈	200 ≈	250 ⋈	320 ∞
Compression Strength	ISO 844	MPa	0,75	0,95	1,5	1,8	2,3	2,6	3,6	5,0	7,0
Compression Modulus	ISO 844	MPa	40	57	70	80	90	105	157	210	320
Shear Strength (2)	ISO 1922	MPa.	0,5	0,55	0,75	0,9	1,2	1,4	1,8	1,9	2,1
Shear Modulus ⁽⁵⁾	ISO 1922	MPa.	13	15	20	25	35	40	50	70	90
Shear Strain ⁽⁵⁾	ISO 1922	%	15	15	10	10	7	7	5	3	2
Tensile Strength	ASTM C 297	MPa	1,8	2,1	2,4	2,7	3,0	3,4	4,4	4,5	4,8
Tensile Modulus	ASTM C 297	MPa	66	75	105	120	140	190	230	240	350
Thermal Conductivity	at 23 °C	W/mK	0,034	0,034	0,034	0,034	0,037	0,041	0,043	0,047	tbd
Fire performance (4)											

B2 EN	ISO 11925:2	tbd	B2 🗈	B2 ⋈	B2 🛎	B2 ∞	B2 ∞	B2 ∞	tbd	tbd



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ArmaFORM® PET Foil

Thin flexible sheets made from recycled PET

Armacell is introducing its innovative and unique new product development: ArmaFORM® PET Foil. These flexible thin sheets, available in various thicknesses, densities and formulations are designed to provide a highly sustainable and improved alternative to cross-linked XPE and XPP products currently available in the market. With this unique product Armacell remains at the forefront of technological development and at the same time environmental responsibility by offering a fully recycable and thermoformable PET Foil product with an outstanding temperature window. Being a recycable product already made from 100% recycled material ArmaFORM® PET Foil supports the automotive industry and others in their drive towards sustainable solutions.



Unique material properties

- > Improved stiffness and compression
- > Very smooth surface (closed & fine cells)
- > High resistance to solvents

Outstanding temperature performance

- > Service temperature -40°C to +180°C
- > Broader thermoforming window
- > Easy processing and shaping

Green product

- > Made from 100% recycled PET
- > 100% recyclable after use
- Significantly reduced CO₂ emission and energy consumption

Applications

- > Thermoformed parts in automotive application (door water shield, roof liner ...)
- > Thin core in FRP laminates in construction application (cladding panel, shelter...)



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ArmaFORM® PET Foil

Polyethylene Terephthalate

Characteristics

- > Service temperature range: -40°C to +180°C
- > 100% recyclable
- > Thermoformability with wide temperature window
- > Flammability: FMVSS 302, B2 (DIN 4102) without flame retardant additives
- > Oil, water, chemical resistant
- > Closed & fine cell structure
- > Easy to process: forming, die cutting, lamination
- > Excellent Insulation properties



Packaging

Roll or sheets. Width standard: 1.080 and 1.330 mm. Other dimensions are available on request.

Preliminary technica	al data		PET Foil 100	PET Foil 200	PET Foil 300	
Density	ISO 845	kg/m³	100 (1)	200 (1)	300 (1)	
Thickness	ISO 1823	mm	2-4 (2)	1-3 (2)	1-2 (2)	
Tensile Strength	Automotive standard	MPa	1,9	3,0	> 5,4	
Compression Strength	Automotive standard	MPa	0,3	0,6	1,0	
Tear Strength	Automotive standard	MPa	20	25	35	
FMVVSS 302	Automotive standard	<100mm/min		Pass		