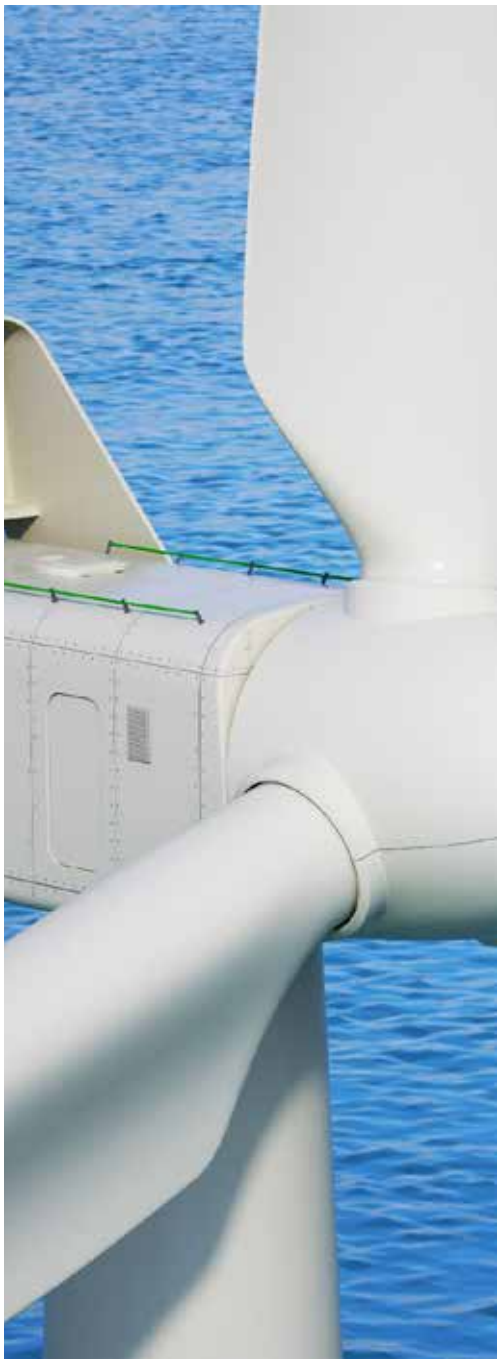
DESIGNED FOR A GREENER TOMORROW

ArmaForm® Core

Structural lightweight PET foam boards, used as a core material in a wide range of composite sandwich structures.

Made by Armacell's patented r-PET technology of producing PET foams, made of 100% recycled PET.

www.armacell-core-foams.com



armacell
ArmaForm®

Technical Data ArmaForm® PET/W GR

Polyethylene Terephthalate based structural foam cores. Made from 100% post-consumer PET.

			GR70	GR80	GR100	GR115	GR135	GR150	GR200	GR250	GR320[1]
Density	**ISO 845**	kg/m³	70 [2]	80 [2]	100 [2]	115 [2]	135 [2]	150 [3]	200 [3]	250 [3]	320 [3]
		lb/ft³	4.4 [2]	5.0 [2]	6.2 [2]	7.2 [2]	8.4 [2]	9.4 [3]	12.5 [3]	15.6 [3]	20.0 [3]
Compression Strength	**ISO 844**	MPa	0,75	1,0	1,5	1,8	2,3	2,6	4,0	5,3	7,0
		psi	110	145	220	260	335	375	580	770	1,015
Compression Modulus	**ISO 844**	MPa	40	57	77	90	105	120	175	235	320
		psi	5,800	8,265	11,165	13,050	15,225	17,400	25,375	34,075	46,400
Shear Strength [4]	**ISO 1922**	MPa	0,5	0,6	0,75	0,95	1,2	1,35	1,75	2,0	2,1
		psi	75	85	110	140	175	195	255	290	305
Shear Modulus [4]	**ISO 1922**	MPa	13	16	21	26	35	37	51	70	90
		psi	1,885	2,320	3,045	3,770	5,075	5,365	7,395	10,150	13,050
Shear Strain [4]	**ISO 1922**	%	15	13	10	10	7	7	5	3	2
		%	15	13	10	10	7	7	5	3	2
Tensile Strength	**ASTM C 297**	MPa	1,8	2,0	2,5	2,9	3,0	3,3	3,9	4,3	4,8
		psi	260	290	365	420	435	480	565	625	695
Tensile Modulus	**ASTM C 297**	MPa	66	80	120	140	140	185	235	270	350
		psi	9,570	11,600	17,400	20,300	20,300	26,825	34,075	39,150	50,750
Thermal Conductivity	**at 23 °C**	W/(m·K)	0,034	0,034	0,034	0,034	0,037	0,041	0,043	0,047	tbd
	at 73.4 °F	BTU.in/ FT².hr.°F	0.236	0.236	0.236	0.236	0.257	0.284	0.298	0.326	tbd

Fire Performance [5]

B2	**EN ISO 11925:2**		tbd	B2 [6]	B2 [6]	B2 [6]	B2 [6]	B2 [6]	B2 [6]	tbd	tbd

Tolerances

		Length	Width	Diagonal	Thickness
Dimensions [7]	mm	2.448	1.008	[8]	GR70-GR80: 10–150mm GR100-GR150: 5-150mm GR200-GR320: 5-100mm
	inch	96.38	39.68	[8]	GR70-GR80: 0.39 – 5.91 GR100-GR150: 0.2 - 5.91 GR200-GR320: 0.2 - 3.94
Tolerances at room temperature	mm	+/- 5	+/- 5	≤ 4	≤ 100mm: +/- 0,5 ≥ 100mm: +/- 1
	inch	+/- 0.2	+/- 0.2	≤ 0.16	≤ 3.94: +/- 0.02 ≥ 3.94: +/- 0.04

(1) Preliminary data (indication based on a limited number of tests).
(2) Tolerances: +/- 5 kg/m³, +/- 0.3 lb/ft³
(3) Tolerances: +/- 5 %
(4) // direction (parallel to the weld)
(5) For detailed test results and certificates please contact us.
(6) As of 50 mm - 1.97 inch
(7) Standard dimension. Further dimensions on special request.
(8) Depending on length and width combination.

All values are average production figures.
Minimum values on request.
Our products are CFC / HFC free.
Physical properties are not affected by variances in colour.
Customs tariff code: 39.21.19.00

Technical Data ArmaForm® PET/W FR, GFR

Polyethylene Terephthalate based fire retardant structural foam cores.

			GFR70	FR100	FR150
Density	**ISO 845**	kg/m³	70 [1]	100 [1]	150 [1]
		lb/ft³	4.4 [1]	6.2 [1]	9.4 [1]
Compression Strength	**ISO 844**	MPa	0,8	1,5	2,6
		psi	115	220	375
Compression Modulus	**ISO 844**	MPa	30	70	105
		psi	4,350	10,150	15,225
Shear Strength [2]	**ISO 1922**	MPa	0,55	0,85	1,3
		psi	80	125	190
Shear Modulus [2]	**ISO 1922**	MPa	14	20	40
		psi	2,030	2,900	5,800
Shear Strain [2]	**ISO 1922**	%	15	15	8
		%	15	15	8
Tensile Strength	**ASTM C 297**	MPa	1,6	2,4	3,4
		psi	230	350	495
Tensile Modulus	**ASTM C 297**	MPa	60	105	180
		psi	8,700	15,225	26,100
Thermal Conductivity	**at 23 °C**	W/(m·K)	0,034	0,034	0,041
	at 73.4 °F	BTU.in/ FT².hr.°F	0.236	0.236	0.284

(*) Preliminary data March 2017.
(1) Tolerances: +/- 5 kg/m³, +/- 0.3 lb/ft³
(2) // direction (parallel to the weld)
(3) For detailed test results and certificates please contact us.
(4) 10 to 25 mm, 0.39 to 0.79 inch.
(5) As of 15 mm, 0.59 inch.
(6) Final sandwich design to be tested.
(7) Standard dimension. Further dimensions on special request.
(8) Depending on length and width combination.

All values are average production figures.
Minimum values on request.
Our products are CFC / HFC free.
Only halogen-free flame retarded additives.
Physical properties are not affected by variances in colour.
Customs tariff code: 39.21.19.00

Fire Performance [3]

Flammability	**DIN 5510-2**	tbd	S4	S4
Smoke Density	**DIN 5510-2**	tbd	SR2	SR2
Dripping	**DIN 5510-2**	tbd	ST2	ST2
Toxicity (FED)	**DIN 5510-2**	tbd	<0.1	<0.1
Edge Ignition	**DIN 5510-2**	tbd	K1	K1
Flammability	**NF F16-101**	M1 [4]	M1 [5]	M1 [5]
Smoke Density	**NF F16-101**	F1	F1	F1
FST	**EN 45545-2 [6]**	tbd	conform	conform
Contribution to fire	**EN 13823**	tbd	D	tbd
Smoke Production	**EN 13823**	tbd	s2	tbd
Flaming Droplets	**EN 13823**	tbd	d0	tbd

Tolerances

		Length	Width	Diagonal	Thickness
Dimensions [7]	mm	2.448	1.008	[8]	5-150 mm
	inch	96.38	39.68	[8]	0.2 - 5.9
Tolerances at room temperature	mm	+/- 5	+/- 5	⩽ 4	⩽ 100mm: +/- 0,5 ⩾ 100mm: +/- 1
	inch	+/- 0.2	+/- 0.2	⩽ 0.16	⩽ 3.94: +/- 0.02 ⩾ 3.94: +/- 0.04

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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.

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For more information, please visit:
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