

DESIGNED FOR A GREENER TOMORROW

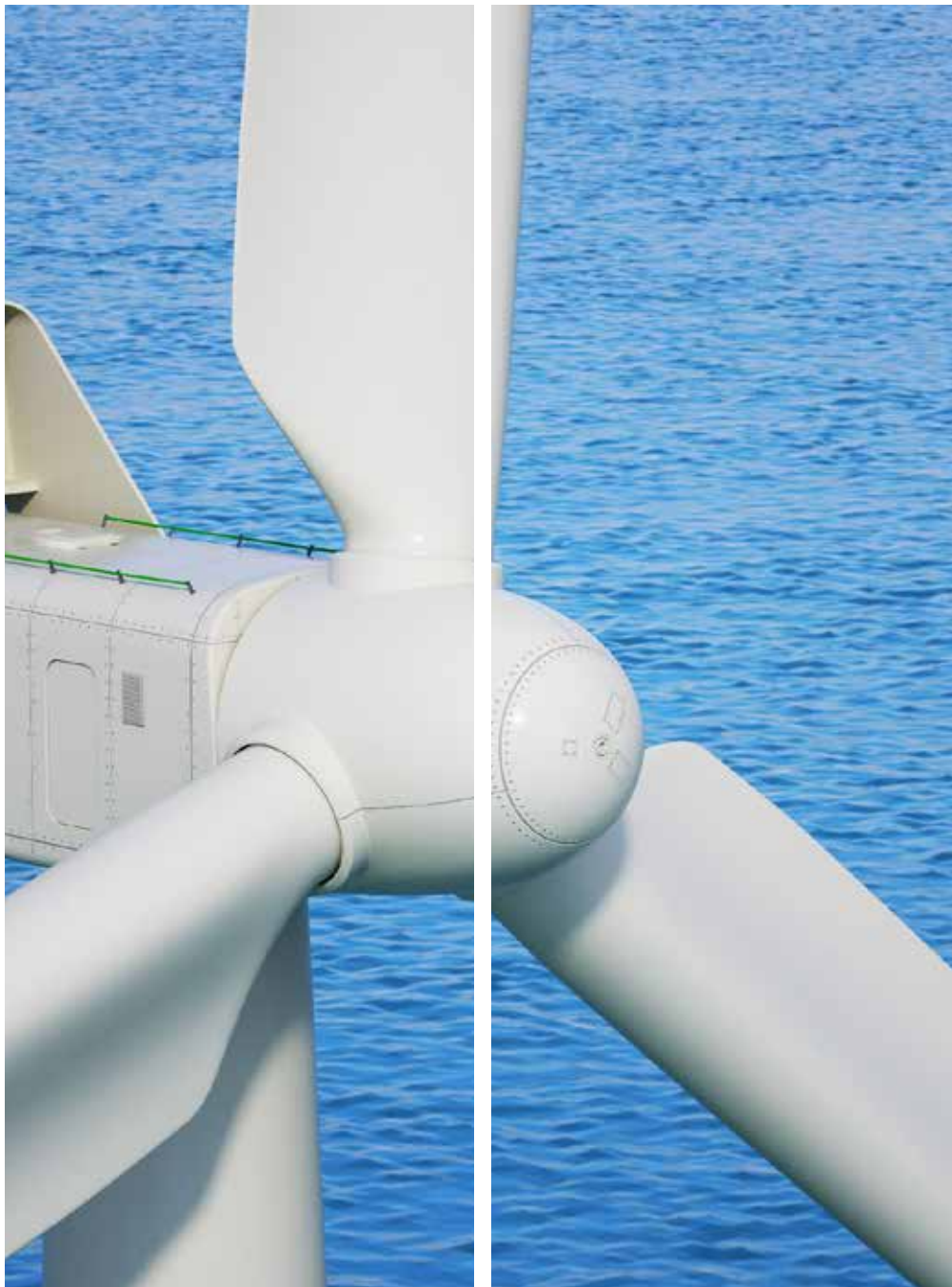


A.B. FIBER ApS

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.



 **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/m ³	70 ⁽²⁾	80 ⁽²⁾	100 ⁽²⁾	115 ⁽²⁾	135 ⁽²⁾	150 ⁽³⁾	200 ⁽³⁾	250 ⁽³⁾	320 ⁽³⁾
		lb/ft ³	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/ FT ² .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/m ³	70 ⁽¹⁾	100 ⁽¹⁾	150 ⁽¹⁾
		lb/ft ³	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/ FT ² .hr.°F	0.236	0.236

- (*) 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

