

TECHNICAL DATA

ArmaPET® Struct

nominal and minimum values

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Technical Data

ArmaPET Struct GR

			GR70		GR80		GR100		GR115	
			Minimum	Nominal	Minimum	Nominal	Minimum	Nominal	Minimum	Nominal
Density	ISO 845	kg/m³	65	70 [1]	75	80 (2)	95	100 (2)	110	115 (2)
		lb/ft³	4.1	4.4 [1]	4.7	5.0 (2)	5.9	6.2 (2)	6.9	7.2 (2)
Compression Strength	ISO 844	MPa	0.5	0.75	0.8	1.0	1.25	1.5	1.6	1.8
		psi	75	110	115	145	180	220	230	260
Compression Modulus	ISO 844	MPa	70	110	80	130	90	160	100	175
		psi	10'155	15'955	11'605	18'855	13'055	23'205	14'505	25'380
Shear Strength (4)	ISO 1922	MPa	0.45	0.5	0.53	0.6	0.7	0.75	0.8	0.95
		psi	65	75	75	85	100	110	115	140
Shear Modulus ⁽⁴⁾	ISO 1922	MPa	11	13	12	16	18	21	22	26
		psi	1'595	1'885	1'740	2'320	2'175	3'045	3'190	3'770
Shear Strain (4)	ISO 1922	%	6	15	6	13	5	10	5	10
		%	6	15	6	13	5	10	5	10
Tensile Strength	ASTM C 297	MPa	1.4	1.8	1.6	2.0	2.0	2.5	2.2	2.9
		psi	205	260	230	290	290	365	320	420
Tensile Modulus	ASTM C 297	MPa	50	66	50	80	80	120	105	140
		psi	7'250	9'570	7'250	11'600	11'600	17'400	15'225	20'300



Technical Data

ArmaPET Struct GR

			GR1 Minimum	35 Nominal	GR1 Minimum	50 Nominal	GR2 Minimum	00 Nominal	GR2 Minimum	250 Nominal
Density	ISO 845	kg/m³	130	135 (2)	142.5	150 ⁽³⁾	190	200 (3)	237.5	250 (3)
		lb/ft³	8.1	8.4 (2)	8.9	9.4 [3]	11.9	12.5 (3)	14.8	15.6 ⁽³⁾
Compression Strength	ISO 844	MPa	2.2	2.3	2.4	2.6	3.5	4.0	4.6	5.3
		psi	320	335	350	375	510	580	665	770
Compression Modulus	ISO 844	MPa	125	190	140	200	180	230	230	270
		psi	18'130	27'555	20'305	29'005	26'105	33'360	33'360	39'160
Shear Strength (4)	ISO 1922	MPa	1.0	1.2	1.2	1.35	1.4	1.75	1.7	2.0
		psi	145	175	175	195	205	255	245	290
Shear Modulus ⁽⁴⁾	ISO 1922	MPa	28	35	32	37	44	51	60	70
		psi	4'060	5'075	4'640	5'365	6'380	7'395	8'700	10'150
Shear Strain (4)	ISO 1922	%	5	7	5	7	3	5	2	3
		%	5	7	5	7	3	5	2	3
Tensile Strength	ASTM C 297	MPa	2.5	3.0	2.6	3.3	3.0	3.9	3.3	4.3
		psi	365	435	375	480	435	565	480	625
Tensile Modulus	ASTM C 297	MPa	110	140	140	185	180	235	200	270
		psi	15'950	20'300	20'300	26'825	26'100	34'075	29'000	39'150

<u>Tolerances</u>		Length	Width	Diagonal	Thickness
Dimensions	mm	2448	1008 / 1220 (5)	(6)	GR70-GR250: 5-200mm ^{[7] [8]}
Dimensions	inch	96.38	39.68 / 48.03 (5)	[6]	GR70-GR250: 0.2 - 7.87
At room	mm	+/- 5	+/- 5	≤ 4	≤ 100mm: +/- 0.5 > 100mm: +/- 1
temperature	inch	+/- 0.2	+/- 0.2	≤ 0.16	≤ 3.94: +/- 0.02 ≥ 3.94: +/- 0.04

All values are average production figures. Minimum values calculated based on ISO 16296: p=0,95 1-a=0,95 0ur products are CFC / HFC free. Physical properties are not affected by variances in colour. Customs tariff code: 39.21.19.00

⁽¹⁾ Tolerances: -5/+8 kg/m³, -0.3/+0.5 lb/ft³
(2) Tolerances: +/- 5 kg/m³, +/- 0.3 lb/ft³
(3) Tolerances: +/- 5 %
(4) // direction (parallel to the weld)
(5) Available on request.
(6) Depending on length and width combination.
(7) Thickness in Suzhou plant is GR70-GR250: 5-150 mm.
(8) No half-board for thickness ≤ 5 mm in grade GR70-GR80.

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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 3,000 employees and 23 production plants in 15 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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