

Gurit[®] G-PET[™]

RECYCLABLE STRUCTURAL FOAM



- Withstands high process temperatures
- Excellent chemical resistance
- Good adhesion
- Excellent mechanical properties
- Recyclable
- Compatible with all types of composite processes
- Germanischer Lloyd (GL) approved
- American Bureau of Shipping (ABS) approved
- Now available with Gurit[®] G-PET[™] LITE surface treatment technology to reduce resin uptake

INTRODUCTION

Highly adaptable, recyclable, thermoplastic core material with good balance of mechanical properties, temperature resistance, density and cost for a wide range of applications and processes.

Gurit[®] G-PET[™] is compatible with a wide range of resin systems including epoxy, vinyl ester, unsaturated polyester and phenolic resins. It offers class leading high shear elongation properties.

Gurit[®] G-PET[™] can be processed at high temperatures, withstanding exotherms up to 150°C and offers outstanding fatigue properties, chemical resistance, good adhesion, is a highly consistent extruded foam, it is ideal for wind energy, marine, industrial, and transportation applications.

Applicable processing techniques include vacuum infusion, bonding, prepreg, and thermoforming. Available in a wide range of thicknesses, and finishes.

INSTRUCTIONS FOR USE

General working practices apply to these products, details of which can be obtained from the Gurit Guide to Composites or by contacting a Gurit representative (contact details provided at the end of this datasheet).

MECHANICAL PERFORMANCE

Type	Test Method	Units	Gurit® G-PET™ 80		Gurit® G-PET™ 90		Gurit® G-PET™ 110		Gurit® G-PET™ 135		Gurit® G-PET™ 200*	
			Brown	Yellow	Brown	Orange	Brown	Blue	Brown	Grey	Brown	Black
Short Edge Marking	-	-	Brown	Yellow	Brown	Orange	Brown	Blue	Brown	Grey	Brown	Black
Nominal Sheet Size	-	mm	1005/1220 x 2440	1005/1220 x 2440	1005/1220 x 2440	1005/1220 x 2440	1005/1220 x 2440	1005/1220 x 2440	1005/1220 x 2440	1005/1220 x 2440	1005/1220 x 2440	1005/1220 x 2440
		inches	39.5/48 x 96	39.5/48 x 96	39.5/48 x 96	39.5/48 x 96	39.5/48 x 96	39.5/48 x 96	39.5/48 x 96	39.5/48 x 96	39.5/48 x 96	39.5/48 x 96
Density	ISO 845	kg/m³	80	94	114	135	200					
		lb/ft³	5.0	5.9	7.1	8.4	12.5					
Density Range	ISO 845	kg /m³	75-85	89-99	109-119	130-140	190-210					
		lb/ft³	4.7-5.3	5.6-6.2	6.8-7.4	8.1-8.8	11.9-13.1					
Compressive Strength	ASTM D1621 – 2010 (ISO 844)	MPa	0.96	1.27	1.71	2.17	3.56					
		psi	139	184	248	315	516					
Compressive Modulus	ASTM D1621 – 2010 (ISO 844)	MPa	48	60	77	95	146					
		psi	6962	8702	11168	13779	21176					
Compressive Modulus	ASTM D1621b - 1973	MPa	77	95	120	146	205					
		psi	11168	13779	17405	21176	29733					
Shear Strength	ASTM C273	MPa	0.53	0.70	0.94	1.19	1.81					
		psi	77	102	136	173	263					
Shear Modulus	ASTM C273	MPa	13	19	27	35	53					
		psi	1885	2756	3916	5076	7687					
Shear Elongation at break	ASTM C273	%	44	39	32	25	19					
Tensile strength	ASTM D1623	MPa	1.49	1.66	1.91	2.16	2.48					
		psi	216	241	277	313	360					
Tensile modulus	ASTM D1623	MPa	89	112	143	177	241					
		psi	12908	16244	20740	25672	34954					
HDT	DIN 53424	°C	200	200	220	220	220					
		°F	392	392	428	428	428					

* Gurit® G-PET™ 200 is not type approved by 3rd party.

Data quoted is average data at each product's nominal density. Full datasets statistically derived minimum value data is available on request.

NOTICE

All advice, instruction or recommendation is given in good faith but Gurit AG (the company) only warrants that advice in writing is given with reasonable skill and care. No further duty or responsibility is accepted by the Company. All advice is given subject to the terms and conditions of sale (the Conditions) which are available on request from the Company or may be viewed at the Company's Website: www.gurit.com/terms-and-conditions.aspx.

The Company strongly recommends that Customers make test panels and conduct appropriate testing of any goods or materials supplied by the Company to ensure that they are suitable for the Customer's planned application. Such testing should include testing under conditions as close as possible to those to which the final component may be subjected. The Company specifically excludes any warranty of fitness for purpose of the goods other than as set out in writing by the Company. The Company reserves the right to change specifications and prices without notice and Customers should satisfy themselves that information relied on by the Customer is that which is currently published by the Company on its website. Any queries may be addressed to the Technical Services Department.

Gurit are continuously reviewing and updating literature. Please ensure that you have the current version, by contacting Gurit Marketing Communications or your sales contact and quoting the revision number in the bottom right-hand corner of this page.

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G-PET is a registered trademark in the EU and in other countries.