

# PVCell™ G-Foam

## Structural Foam Core

- **Optimized properties**
- **Improved shear elongation**
- **Suitable for all sandwich composites applications**
- **Superior strength and stiffness to weight ratio**
- **Self extinguishing**
- **Outstanding chemical resistance**

### Introduction

PVCell™ G-Foam is a closed cell, cross-linked PVC foam. It provides superior strength to weight ratio for all composite applications.

Other key features of PVCell™ G-Foam include outstanding chemical resistance, negligible water absorption, and excellent thermal insulation capabilities. It is compatible with most common resin systems including epoxy, polyester and vinylester.

PVCell™ G-Foam is available in a wide range of formats with all standard cut patterns and finishes possible.

Type	Test Method	Units	G45	G60	G80	G100	G130	G200
<b>Nominal Density</b>		kg/m <sup>3</sup>	48	60	80	100	130	200
		lb/ft <sup>3</sup>	3.0	3.8	5.0	6.3	8.1	12.5
<b>Density Range</b>	ISO 845	kg/m <sup>3</sup>	44-55	54-69	72-88	90-112	120-145	180-240
		lb/ft <sup>3</sup>	2.8-3.4	3.4-4.3	4.5-5.5	5.6-7.0	7.5-9.1	11.3-15
<b>Compressive Strength</b>	ASTM D1621	MPa	0.6	0.9	1.3	1.9	2.9	5.1
		psi	87	131	189	276	421	740
<b>Compressive Modulus</b>	ASTM D1621 (2010)	MPa	35	51	70	101	126	207
		psi	5076	7397	10153	14649	18275	30023
	ASTM D1621 (1973b)	MPa	51	68	100	134	189	334
		psi	7397	9863	14504	19435	27412	48443
<b>Shear Strength</b>	ASTM C-273	MPa	0.55	0.78	1.10	1.50	2.00	3.50
		psi	80	113	160	218	290	508
<b>Shear Modulus</b>	ASTM C-273	MPa	16	21	32	40	55	90
		psi	2321	3046	4641	5802	7977	13053
<b>Shear Elongation</b>	ASTM C-273	%	37	37	37	38	38	40
<b>Tensile Strength</b>	ASTM C-297	MPa	1.3	1.8	2.3	3.1	4.2	6.8
		psi	189	261	334	450	609	986
<b>Tensile Modulus</b>	ASTM C-297	MPa	54	72	103	136	200	329
		psi	7832	10443	14939	19725	29008	47717
<b>Thermal Conductivity</b>	ASTM C-518	W/mK	0.03	0.03	0.03	0.03	0.04	0.04

PVCe<sup>ll</sup>™ G series foam can be processed at up to +90°C with minor dimensional changes. Maximum processing temperature is dependent on time, pressure and process conditions. Continuous operating temperature is -200°C to +70°C. Users are advised to contact Gurit to confirm that PVCe<sup>ll</sup> is compatible with their particular processing parameters.

The table of mechanical properties shown above provides provisional data, subject to change.

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

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