

Corecell™ P-Foam

Structural Core Material

- **Excellent impact tolerance**
- **Suitable for dynamically-loaded structures**
- **Suitable for processing with prepregs up to 85°C**
- **Superior styrene and temperature resistance to linear PVC foam**
- **Highly thermoformable**

Introduction

Corecell P-Foam shares the benefits of SAN chemistry common to all **Corecell** products.

Built in toughness – Very high ductility and damage tolerance

Fine cell size – Resin absorption is very low, saving both weight and cost

Superior uniformity – Low density variation

Compatibility – Suitable for use with all polyester, vinylester and epoxy resins

No outgassing inhibition - Safe for use with all prepregs since **Corecell** does not inhibit epoxy resin curing mechanisms

Handling – Tough and easy to machine

Corecell P-Foam is a development of **Corecell** A-Foam, intended for prepreg and SPRINT® manufacturing processes. **Corecell** P-Foam has incredible toughness and resistance to cracking, which comes from its high ductility. **Corecell** P-Foam can elongate up to 65% in shear before failure, making core shear failure in a laminate almost impossible.

For the manufacturer of prepreg or SPRINT® structures, especially yacht hulls, **Corecell** P-Foam removes the problems of outgassing inhibition or thermal stability. **Corecell** P-Foam is also highly thermoformable, which is invaluable in the construction of high performance prepreg or SPRINT® structures.



Type	Test Method	Units	P500	P600	P800	P1200
Nominal Density		kg/m ³	100	122	155	220
		lb/ft ³	6.2	7.6	9.7	13.7
Density Range		kg/m ³	89-110	111-133	140-169	200-240
		lb/ft ³	5.5-6.9	7.0-8.3	8.7-10.5	12.5-15.0
Compression Strength	ASTM D1621	MPa	1.27	1.81	2.77	5.16
		psi	184	263	402	749
Compressive Modulus	ASTM D1621b	MPa	90	125	186	330
		psi	13060	18140	26990	47890
Shear Strength	ISO 1922	MPa	1.13	1.43	1.89	2.83
		psi	164	208	274	411
Shear Modulus	ISO 1922	MPa	44	56	77	121
		psi	6390	8130	11170	17560
Shear Elongation	ISO 1922	%	67%	67%	59%	60%
Thermal Conductivity	ASTM C518	W/mK	0.04	0.04	0.04	0.05

* Peak change rate under static load

Intermediate densities may be available on request, subject to minimum order quantities.

Please Note:

Data quoted is average data at each product's nominal density, and is derived from our regular testing of production materials.

Statistically derived minimum value data, satisfying the design requirements of various classification societies, is available on request.

Notice

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Data sheets are being continuously reviewed and updated. Please ensure that you have the current version before using the product, by contacting the Marketing Communications department and quoting the revision number in the bottom right-hand corner of this page. Alternatively, the latest version can be downloaded from our web site: www.gurit.com

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