

Evonik Corporation Rohacell® 51 S Self-Extinguishing Grade Polymethacrylimide (PMI) Foam

Category : Other Engineering Material , Composite Core Material , Polymer , Thermoset , Polymethacrylimide

Material Notes:

Description: ROHACELL® is produced by thermal expansion of a co-polymer sheet of methacrylic acid and methacrylonitrile. During the foaming process the copolymer sheet is converted to PMI - PolyMethacrylimide. Alcohol is used as a blowing agent, thus ROHACELL® contains no fluorinated carbon hydrates and is halogen free. It has a very homogeneous cell structure and isotropic properties. Specific Notes for this Material: ROHACELL® S (self-extinguishing) is a closed-cell rigid foam plastic based on PMI (polymethacrylimide) which does not contain any CFCs. The field of application for ROHACELL® S is railway, ship and aerospace applications. Curing temperature up to 130C (266F). Curing pressure up to 0.35 MPa (50 psi). Sandwich components using ROHACELL® S as core material can be realized in a single work step (= cocuring). The structural components can be manufactured in an autoclave or RTM. Other commonly used techniques such as SCRIMP are applicable. ROHACELL® S is easy to shape. Thermoformability is another advantage of the core material. Information provided by degussa.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Evonik-Corporation-Rohacell-51-S-Self-Extinguishing-Grade-Polymethacrylimide-PMI-Foam.php

Physical Properties	Metric	English	Comments
Density	0.0521 g/cc	0.00188 lb/in ³	DIN 53420, ISO 845, ASTM D 1622

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	1.10 MPa	160 psi	DIN 53455, ISO 527-2, ASTM D 638
Elongation at Break	3.5 %	3.5 %	DIN 53455, ISO 527-2, ASTM D 638
Modulus of Elasticity	0.0500 GPa	7.25 ksi	ISO 527-2, ASTM D 638
Compressive Strength	0.700 MPa	102 psi	DIN 53421, ISO 844, ASTM D 1621
Poissons Ratio	0.25	0.25	Calculated
Shear Modulus	0.0200 GPa	2.90 ksi	DIN 53294, ASTM C 273
Shear Strength	0.600 MPa	87.0 psi	DIN 53294, ASTM C 273

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	190 °C	374 °F	Heat Distortion Resistance; DIN 53424

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