

## Evonik Corporation Rohacell® 51 WF High Heat 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® WF (= grade with increased heat distortion resistance) is a closed-cell rigid foam plastic based on PMI (polymethacrylimide) which does not contain any CFCs. ROHACELL® WF serves as a core material in advanced sandwich components used in aircraft and spacecraft construction. Curing temperature up to 180C (356F). Curing pressure up to 0.70 MPa (100 psi). Sandwich components using ROHACELL® WF as core material can be realized in a single work step (= cocuring). The structural components can be manufactured in an autoclave and by means of RTM. ROHACELL® WF 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-WF-High-Heat-Grade-Polymethacrylimide-PMI-Foam.php](http://www.lookpolymers.com/polymer_Evonik-Corporation-Rohacell-51-WF-High-Heat-Grade-Polymethacrylimide-PMI-Foam.php)

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

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	1.60 MPa	232 psi	DIN 53455, ISO 527-2, ASTM D 638
Elongation at Break	3.0 %	3.0 %	DIN 53455, ISO 527-2, ASTM D 638
Modulus of Elasticity	0.0750 GPa	10.9 ksi	ISO 527-2, ASTM D 638
Flexural Strength	1.60 MPa	232 psi	DIN 53423, ISO 1209, ASTM D 790
Compressive Strength	0.800 MPa	116 psi	DIN 53421, ISO 844, ASTM D 1621
Shear Modulus	0.0240 GPa	3.48 ksi	DIN 53294, ASTM C 273
Shear Strength	0.800 MPa	116 psi	DIN 53294, ASTM C 273

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	205 °C	401 °F	Heat Distortion Resistance; DIN 53424

## Contact Songhan Plastic Technology Co.,Ltd.

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