

Menzolit Menzolit[®] BMC 0900 Unsaturated Polyester UP

Category : Polymer , Thermoset , Polyester, TS , Thermoset Polyester Glass Filled BMC

Material Notes:

BMC 0900 is a special BMC used in a chemically aggressive environment. The glass content is set to a level that combines good mould ability with good strength and stiffness properties. Typical applications are pump housings, armatures, covers and boxes for use within the chemical industry. The chemical resistance of the material is a complex subject and exposure time, temperature and type of chemical media are important. Before deciding for a specific application, please check with our applications engineering department to select the proper material and check whether the material would survive in a given environment or not. The product is fire retardant and self-extinguishing. Information Provided by Menzolit

Order this product through the following link:

http://www.lookpolymers.com/polymer_Menzolit-Menzolit-BMC-0900-Unsaturated-Polyester-UP.php

Physical Properties	Metric	English	Comments
Density	1.80 g/cc	0.0650 lb/in ³	ISO 1183
Water Absorption	<= 0.30 %	<= 0.30 %	ISO 62
Linear Mold Shrinkage	0.0015 cm/cm	0.0015 in/in	ISO 2577

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	35.0 MPa @Temperature 22.0 °C	5080 psi @Temperature 71.6 °F	25mm flat samples, compression moulded; ISO 527-4
Tensile Strength, Yield	35.0 MPa @Temperature 22.0 °C	5080 psi @Temperature 71.6 °F	25mm flat samples, compression moulded; ISO 527-4
Elongation at Yield	0.00 %	0.00 %	tensile rupture strain; ISO 527-4
Modulus of Elasticity	13.0 GPa	1890 ksi	25mm flat samples, compression moulded; ISO 527-4
Flexural Strength	120 MPa @Temperature 22.0 °C	17400 psi @Temperature 71.6 °F	25 mm wide 100 mm long, flat samples; ISO 14125
Flexural Modulus	10.0 GPa @Temperature 22.0 °C	1450 ksi @Temperature 71.6 °F	25 mm wide 100 mm long, flat samples; ISO 14125
Poissons Ratio	0.30	0.30	
Shear Modulus	5.00 GPa	725 ksi	in plane
Charpy Impact, Notched	3.00 J/cm ²	14.3 ft-lb/in ²	ISO 179

Mechanical Properties	Metric	English	Comments
CTE, linear	10.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	5.56 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	ISO 11359-2
Specific Heat Capacity	1.10 J/g- $\text{Å}^\circ\text{C}$	0.263 BTU/lb- $\text{Å}^\circ\text{F}$	
Thermal Conductivity	0.700 W/m-K	4.86 BTU-in/hr-ft $\text{Å}^2\cdot\text{Å}^\circ\text{F}$	
Maximum Service Temperature, Air	140 $\text{Å}^\circ\text{C}$	284 $\text{Å}^\circ\text{F}$	
Deflection Temperature at 1.8 MPa (264 psi)	$\geq 150 \text{ Å}^\circ\text{C}$	$\geq 302 \text{ Å}^\circ\text{F}$	ISO 75-2
Minimum Service Temperature, Air	-40.0 $\text{Å}^\circ\text{C}$	-40.0 $\text{Å}^\circ\text{F}$	
Glass Transition Temp, Tg	125 $\text{Å}^\circ\text{C}$	257 $\text{Å}^\circ\text{F}$	ISO 11357-2
Flammability, UL94	V-0 @Thickness 3.00 mm	V-0 @Thickness 0.118 in	
Oxygen Index	30 %	30 %	ISO 4589-2
Glow Wire Test	960 $\text{Å}^\circ\text{C}$	1760 $\text{Å}^\circ\text{F}$	IEC 60695-2-12

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093
Surface Resistance	1.00e+12 ohm	1.00e+12 ohm	IEC 60093
Dielectric Constant	4.0	4.0	IEC 60250
Dielectric Strength	30.0 kV/mm	762 kV/in	IEC 60243-1
Dissipation Factor	0.010	0.010	IEC 60250
Comparative Tracking Index	600 V	600 V	IEC 60112

Processing Properties	Metric	English	Comments
Processing Temperature	135 - 150 $\text{Å}^\circ\text{C}$	275 - 302 $\text{Å}^\circ\text{F}$	Injection moulding, matched metal die

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