Menzolit® HPC 1300

Thermoset Polyester

Menzolit Ltd (UK)

Message:

Menzolit® HPC 1300 is a sheet moulding compound based on unsaturated polyester resin. The product is glass fibre reinforced and contains mineral fillers. In case of fire the product doesn't melt, neither does it form droplets nor is smoke generation excessive. The material is compression moulded in heated steel moulds. It is recommended to work with chrome plated tools. The product contains no halogens.
Menzolit® HPC 1300 is a special SMC for high strength applications. The glass level has been selected to combine mouldability with high strength and stiffness properties in orientation direction. The reinforcement is composed of chopped, randomly distributed glass fibers and additional unchopped, continuous and lengthwise oriented glass fibers. This leads to very high stiffness and strength properties along with the unidirectional fibers. The flowabilty in orientation direction is reduced. This orientation influences flow during moulding and the anisotropic material properties have to be kept in mind during part design and part moulding. Typical applications are load bearing components, for instance bumpers and power train substructures.

General Information			
UL YellowCard	E120779-100101990		
Filler / Reinforcement	Glass\Mineral,50% Filler by Weight		
Features	Flame Retardant Good Moldability Good Stiffness Halogen Free High Heat Resistance High Strength Low Smoke Emission		
Uses	Automotive Bumper		
Appearance	Colors Available		
Forms	SMC - Sheet Molding Compound		
Processing Method	Injection Molding		
Part Marking Code (ISO 11469)	>UP-(MD+GLU)69<		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.70	g/cm³	ISO 1183
Molding Shrinkage			
-- [1]	0.0	%	DIN 53464
--	-0.030	%	ISO 2577
Water Absorption (Saturation, 23°C)	< 0.50	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (Compression Molded)	25000	MPa	ISO 527-2
Tensile Stress (Yield, Compression Molded)	415	MPa	ISO 527-2
Tensile Strain (Break, Compression Molded)	1.6	%	ISO 527-2
Flexural Modulus (Compression Molded)	28000	MPa	ISO 178
Flexural Stress (Compression Molded)	743	MPa	ISO 178
Compressive Stress	370	MPa	ISO 14126

Poisson's Ratio	0.14		Internal Method
Matrix Crazing Strain	0.50	%	Internal Method
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (Compression Molded)	370	kJ/m^2	ISO 179
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (1.8 MPa, Unannealed)	> 200	°C	ISO 75-2/A
Continuous Use Temperature	170	°C	Internal Method
Glass Transition Temperature	162	°C	DSC
CLTE - Flow	7.0E-6	cm/cm/°C	ISO 11359-2
Flammability	**Nominal Value**		**Test Method**
Flame Rating (3.00 mm)	HB		UL 94
Injection	**Nominal Value**	**Unit**	
Mold Temperature	140 to 160	°C	
Injection Pressure	8.00 to 10.0	MPa	
NOTE			
1.	Post Molding Shrinkage		

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

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