Menzolit® AdvancedSMC 1300

Thermoset Polyester

Menzolit Ltd (UK)

Message:

Menzolit® AdvancedSMC 1300 is a special SMC for high strength applications. The carbon fibre level has been selected to combine good mould ability with high strength and stiffness properties. The reinforcement is composed of chopped, randomly distributed fibers and additional unchopped continuous fibers. The material is composed of stacked layers of which the orientation can be tailored according to the load path. Figures given apply to a quasi isotropic 6- layer [0/90/45/-45/90/0] design, for different layer designs please contact our R&D departement. Typical applications are load-bearing components, for instance bumpers and power train substructures. Please check storage conditions printed on packaging label.

General Information			
Filler / Reinforcement	Mineral filler Carbon fiber reinforced material		
Features	Low smoke Rigidity, high High strength Good formability Halogen-free		
Uses	Application in Automobile Field Automotive exterior parts		
Forms	Particle		
Processing Method	Compression molding		
Part Marking Code (ISO 11469)	>UP-CF60		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.44	g/cm³	ISO 1183
Molding Shrinkage	-0.10	%	ISO 294-4
Water Absorption (Saturation, 23°C)	0.80	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			ISO 527-2
0°C, compression molding	38000	MPa	ISO 527-2
90°C, compression molding	37000	MPa	ISO 527-2
Tensile Stress			ISO 527-2
Yield, 0°C, compression molding	300	MPa	ISO 527-2
Yield, 90°C, compression molding	315	MPa	ISO 527-2
Tensile Strain			ISO 527-2
Fracture, 0°C, compression molding	1.8	%	ISO 527-2
Fracture, 90°C, compression molding	3.0	%	ISO 527-2
Flexural Modulus			ISO 178

0°C, compression molding	47000	MPa	ISO 178
90°C, compression molding	21000	MPa	ISO 178
Flexural Stress			ISO 178
0°C, compression molding	780	MPa	ISO 178
90°C, compression molding	540	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179
0°C, compression molding	85	kJ/m^2	ISO 179
90°C, compression molding	78	kJ/m^2	ISO 179
Thermal	**Nominal Value**	**Unit**	**Test Method**
Glass Transition Temperature	162	°C	DSC
CLTE - Flow			ISO 11359-2
0°C	2.7E-6	cm/cm/°C	ISO 11359-2
90°C	2.7E-6	cm/cm/°C	ISO 11359-2
Flammability	**Nominal Value**		**Test Method**
Flame Rating (2.00 mm)	HB		UL 94

Additional Information

Post Moulding Shrinkage, DIN 53464: 0%Fiber Content UD, total, EN ISO 1172, 0°C: 60%Fiber Content UD, total, EN ISO 1172, 90°C: 50%Heat Distortion Temperature, EN ISO 75-2, 0°C: >200°CContinuous Service Temperature, Menzolit Method: 165°CPoison's Ratio, Menzolit Method, 0°C: 0.3Poison's Ratio, Menzolit Method, 90°C: 0.3Matrix Crazing Strain, Menzolit Method, 0°C: 0.6%Compression Strength, EN ISO 14126, 0°C: 300 MPaThe value listed as Flexural Strength and Flexural Modulus, ISO 178, were tested in accordance with EN ISO 14125.The value listed as Molding Shrinkage, ISO 294-4, was tested in accordance with ISO 2577.

Injection	Nominal Value	Unit
Mold Temperature	155 - 160	°C
Injection Pressure	10.0 - 16.0	MPa

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China