Menzolit® CarbonSMC 0400

Thermoset Polyester

Menzolit Ltd (UK)

Message:

Menzolit® CarbonSMC 0400 is an developmental carbon fibre low profile SMC for automotive applications. It fulfils the requirements of the automotive industry regarding painted body panels including low C-emissions. For highest surface quality we recommend processing on mirror finished chrome-plated steel moulds. The product's thermal resistance allows for on-line painting at 190- 200°C. Adhesion of paint or IMC is excellent. The material doesn't shrink during moulding, it even expands. Therefore warpage is reduced and dimensional stability is excellent.

General Information				
Filler / Reinforcement	Mineral filler			
	Carbon fiber reinforced material			
Features	Good dimensional stability			
	Low warpage			
	Low smoke			
	Sprayable			
	Good adhesion			
	Low shrinkage			
	Halogen-free			
Uses	Application in Automobile Field			
Forms	Particle			
Processing Method	Compression molding			
Part Marking Code (ISO 11469)	>UP-(CF+MD)60			
Physical	Nominal Value	Unit	Test Method	
Density	1.42	g/cm³	ISO 1183	
Molding Shrinkage	-0.17	%	ISO 294-4	
Water Absorption (Saturation, 23°C)	0.50	%	ISO 62	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Modulus (Compression Molded)	32.0	MPa	ISO 527-2	
Tensile Stress (Yield, Compression Molded)	138	MPa	ISO 527-2	
Tensile Strain (Break, Compression Molded)	1.4	%	ISO 527-2	
Flexural Modulus (Compression Molded)	28000	MPa	ISO 178	
Flexural Stress (Compression Molded)	324	MPa	ISO 178	
Impact	Nominal Value	Unit	Test Method	
Charpy Notched Impact Strength (Compression Molded)	57	kJ/m²	ISO 179	
Thermal	Nominal Value	Unit	Test Method	
Glass Transition Temperature	185	°C	DSC	
CLTE - Flow	8.0E-6	cm/cm/°C	ISO 11359-2	

Flammability	Nominal Value	Test Method
Flame Rating (2.00 mm)	НВ	UL 94

Additional Information

Fibre Content UD, total, EN ISO 1172: % 60Post Moulding Shrinkage DIN 53464: 0 %Heat Distortion Temp. EN ISO 75-2: >200°CContinous Service Temp. Menzolit method: 180 °CPoison's Ratio Menzolit method: 0,30Tensile Rupture Strain EN ISO 527-4: 1.40%Matrix Crazing Strain Menzolite method: 0.40%Compression Strength EN ISO 14126: 140 MPaThe value listed as Molding Shrinkage, ISO294-4, was tested in accordance with ISO 2577.The values listed as Flexural Strength and Flexural Modulus ISO 178, were tested in accordance with ED ISO 14125.

Injection	Nominal Value	Unit
Mold Temperature	155 - 160	°C
Injection Pressure	5.00 - 12.0	MPa

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