

# Menzolit® BMC 3100

Thermoset Polyester

Menzolit Ltd (UK)

## Message:

Menzolit® BMC 3100 is a bulk 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 injection moulded in heated steel moulds. It is recommended to work with chrome plated tools. The product contains no halogens.

Menzolit® BMC 3100 is a special BMC suitable for the use in head lamp reflectors. Because of its high temperature resistance and dimensional stability as well as low coefficient of thermal expansion, complex shapes and good reflective properties can be made. Because of its temperature resistance the precise geometry of the reflector will keep its precise shape even at high temperature. It has found specific use in the field of reflectors for automotive head lamps but its use as lamp housings for household and office lighting equipment is possible as well.

General Information			
Filler / Reinforcement	Glass\Mineral, 12% Filler by Weight		
Features	Flame Retardant		
	Good Dimensional Stability		
	Halogen Free		
	High Heat Resistance		
	Low Smoke Emission		
Uses	Automotive Applications		
	Housings		
	Reflectors		
Appearance	Natural Color		
Forms	BMC - Bulk Molding Compound		
Processing Method	Injection Molding		
Part Marking Code (ISO 11469)	>UP-(MD+GF)77<		
Physical	Nominal Value	Unit	Test Method
Density	2.00	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage			
--	-0.030	%	ISO 2577
-- <sup>1</sup>	0.0	%	DIN 53464
Water Absorption (Saturation, 23°C)	< 0.50	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (Compression Molded)	14000	MPa	ISO 527-2
Tensile Stress (Yield, Compression Molded)	25.0	MPa	ISO 527-2
Tensile Strain (Break, Compression Molded)	1.0	%	ISO 527-2
Flexural Modulus (Compression Molded)	11000	MPa	ISO 178
Flexural Stress (Compression Molded)	79.0	MPa	ISO 178
Poisson's Ratio	0.30		Internal Method

Matrix Crazing Strain	0.30	%	Internal Method
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (Compression Molded)	15	kJ/m <sup>2</sup>	ISO 179
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	> 150	°C	ISO 75-2/A
Continuous Use Temperature	190	°C	Internal Method
Glass Transition Temperature	185	°C	DSC
CLTE - Flow	1.0E-5	cm/cm/°C	ISO 11359-2
Flammability	Nominal Value		Test Method
Flame Rating (2.00 mm)	HB		UL 94
Injection	Nominal Value	Unit	
Mold Temperature	135 to 160	°C	
Injection Pressure	2.00 to 8.00	MPa	
NOTE			

1. Post Molding Shrinkage

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#### Recommended distributors for this material

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