

ISSUED: 20/08/2021

ISO 9001 CERTIFIED

Terylene B96 P2 GFC20 is a PBT, injection molding grade, 20% glass fiber reinforced.  
 This material is suitable for Food Contact applications.

PROPERTIES	CONDITIONS	TEST METHOD	UNITS	VALUES
PHYSICAL PROPERTIES				
Density	23 °C	ISO 1183	g/cm³	1,45
Moisture absorption	23 °C / 50% r.h.	ISO 62	%	0,2
Water absorption	23 °C / saturation in water	ISO 62	%	0,4
Flammability	1,5 mm	UL-94		HB
PROCESSING CONDITIONS				
Melt Volume rate	250°C/2,16 kg	ISO 1133	cm³/10 min	15
Melt temperature, injection moulding			°C	250-280
Mould temperature			°C	60-100
Moulding Shrinkage	longitudinal		%	0,40
	transversal			1,10
MECHANICAL PROPERTIES				
Tensile modulus	23 °C, 1 mm/min	ISO 527-1-2	MPa	7.500
Tensile strength	23 °C, 50 mm/min	ISO 527-1-2	MPa	110
Elongation at break	23 °C, 50 mm/min	ISO 527-1-2	%	2,5
Flexural modulus	23 °C, 2 mm/min	ISO 178	MPa	6.500
Flexural strength	23 °C, 2 mm/min	ISO 178	MPa	175
Charpy unnotched impact strength	23°C	ISO 179/1eU	kJ/m²	50
	-30°C			-
Charpy notched impact strength	23°C	ISO 179/1eA	kJ/m²	8,0
	-30°C			-
THERMAL PROPERTIES				
Melting temperature (DSC)	10°C/min	ISO 3146	°C	223
Heat Deflection Temperature (HDT)	1,8 MPa	ISO 75-1-2	°C	205
	0,45 MPa			215
Thermal coefficient of linear expansion	23-80°C long.	ISO 11359-1/-2	10 <sup>-4</sup> /K	0,25
ELECTRICAL PROPERTIES				
Dielectric constant	1MHz	IEC 60250		3,8
Dissipation factor	1 MHz	IEC 60250		170
Volume resistivity		IEC 60093	Ω.m	>10 <sup>13</sup>
Surface resistivity		IEC 60093	Ω	10 <sup>13</sup>
Comparative tracking index		IEC 60112		375



## CHARACTERISTICS

Terylene B96 P2 GFC20 is a PBT injection molding grade, reinforced with 20% glass for rigid, high stiffness and dimensional stable parts. This material is suitable for Food Contact applications.

## APPLICATIONS

Terylene B96 P2 GFC20 is used in a wide range of applications where a combination of mechanical properties, thermal resistance and dimensional stability are needed.

Glass-fibre reinforced grades are suitable for housings, supports, covers, consoles and electrical insulating parts.

## FORMAT AND STORAGE

Terylene B96 P2 GFC20 is supplied in moisture-proof packaging. Typical formats are Big Bag, octabin, and 25kg bags.

All containers are perfectly sealed. The product should be stored in a dry place and opened just before processing.

## PROCESSING GUIDELINES

### Drying

Max. Water content: 0,04%

To ensure optimum part performance, this product should be dried prior to moulding and maintained at a moisture level of less than 0,04%. Dehumidifying dryers operating at 100-120°C for 4 hours drying time are recommended.

### Injection moulding

The recommended processing parameters for injection moulding are:

Melt temperature: 250-280°C

Mould temperature: 60-100 °C

Injection speed: high

Back pressure: moderate

## NOTE

All recommendations are based on knowledge and experience; The values have been established on standardized tests. The figures should be regarded as guide values and not as binding minimum values. As many factors may affect processing or applications, we recommend that customers make their own tests to determine the suitability of a product for its particular use.