

ISSUED: 14/08/2020

ISO 9001 CERTIFIED

Terylene B95 P2 U0 is an Unreinforced PBT Flame Retardant (Halogen Free), Injection Molding grade.

PROPERTIES	CONDITIONS	TEST METHOD	UNITS	VALUES
PHYSICAL PROPERTIES				
Density	23 °C	ISO 1183	g/cm <sup>3</sup>	1,32
Moisture absorption	23 °C / 50% r.h.	ISO 62	%	0,25
Water absorption	23 °C / saturation in water	ISO 62	%	0,5
PROCESSING CONDITIONS				
Melt Volume rate	250°C/2,16 kg	ISO 1133	cm <sup>3</sup> /10 min	70
Melt temperature, injection moulding			°C	240 - 270
Mould temperature			°C	70 - 90
Moulding Shrinkage	longitudinal		%	1,3 - 1,6
	transversal		%	1,3 - 1,6
MECHANICAL PROPERTIES				
Tensile modulus	23 °C, 1 mm/min	ISO 527-1-2	MPa	2.500
Tensile strength	23 °C, 50 mm/min	ISO 527-1-2	MPa	35
Elongation at break	23 °C, 50 mm/min	ISO 527-1-2	%	3,5
Flexural modulus	23 °C, 2 mm/min	ISO 178	MPa	3.000
Flexural strength	23 °C, 2 mm/min	ISO 178	MPa	75
Charpy unnotched impact strength	23°C	ISO 179/1eU	kJ/m <sup>2</sup>	25
Charpy notched impact strength	23°C	ISO 179/1eA	kJ/m <sup>2</sup>	2,0
FLAMMABILITY PROPERTIES				
Flammability	1,5 mm	UL-94	Class	V0
Glow Wire Flammability Index	1,5 mm	IEC 60695-2-12	°C	960
THERMAL PROPERTIES				
Melting temperature (DSC)	10°C/min	ISO 3146	°C	223
Heat Deflection Temperature (HDT)	1,8 MPa	ISO 75-1-2	°C	60
	0,45 MPa			160
Thermal coefficient of linear expansion	23-80°C long.	ISO 11359-1/-2	10 <sup>-4</sup> /K	1,1
ELECTRICAL PROPERTIES				
Volume resistivity		IEC 60093	Ω.m	>10 <sup>13</sup>
Surface resistivity		IEC 60093	Ω	>10 <sup>13</sup>
Comparative tracking index		IEC 60112		600

### CHARACTERISTICS

Terylene B95 P2 U0 is distinguished by high mechanical strength, toughness and thermo stability. Parts made from Terylene B95 P2 U0 have particularly good mechanical properties, flame retardancy and CTI. Its halogens free flame retardant system enhances its flame behavior to V0 class and its GWFI up to 960°C.

### APPLICATIONS

Terylene B95 P2 U0 is used in a wide range of applications where a combination of mechanical properties, thermal resistance and flame retardancy are needed. Its excellent mechanical properties, and its flame retardant properties make it suitable for components specially used in electrical, electronic and automotive industries.

### FORMAT AND STORAGE

Terylene B95 P2 U0 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 the best performance, this product should be dried before moulding and maintained at a moisture level of less than 0,04%. When drying is necessary, conditions are:

Dehumidifying dryers temperature: 100-120 °C      Drying time: 4 hours

#### Injection moulding

The recommended processing parameters for injection moulding are:

Melt temperature: 240-270°C	Mould temperature: 70-90 °C
Injection speed: High	Back pressure: Moderate

#### Shrinkage

The shrinkage of a moulded part is influenced by wall thickness, mould gating, and moulding conditions.

### 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.