

ISSUED: 24/01/2024

ISO 9001 CERTIFIED

**Proxylene B97 LN** is a high viscosity, lubricated and nucleated PBT unreinforced grade for extrusion. It is suitable for cables, tubes and profiles.

PROPERTIES	CONDITIONS	TEST METHOD	UNITS	VALUES
<b>PHYSICAL PROPERTIES</b>				
Density	23 °C	ISO 1183	g/cm <sup>3</sup>	1,30
Moisture absorption	23 °C / 50% r.h.	ISO 62	%	0,25
Water absorption	23 °C / saturation in water	ISO 62	%	0,40
<b>PROCESSING CONDITIONS</b>				
Melt Volume rate	250°C/2,16 kg	ISO 1133	cm <sup>3</sup> /10 min	9
Intrinsic Viscosity		ISO 1628		1,3
Melt temperature, extrusion			°C	230-290
Moulding Shrinkage	longitudinal transversal		%	1,6 2,0
<b>MECHANICAL PROPERTIES</b>				
Tensile modulus	23 °C, 1 mm/min	ISO 527-1-2	MPa	2.600
Tensile strength	23 °C, 50 mm/min	ISO 527-1-2	MPa	60
Nominal Tensile Strain at Break	23 °C, 50 mm/min	ISO 527-1-2	%	> 50
Flexural modulus	23 °C, 2 mm/min	ISO 178	MPa	2.400
Flexural strength	23 °C, 2 mm/min	ISO 178	MPa	85
Charpy unnotched impact strength	23°C	ISO 179/1eU	kJ/m <sup>2</sup>	215
Charpy notched impact strength	23°C	ISO 179/1eA	kJ/m <sup>2</sup>	5,0
<b>THERMAL PROPERTIES</b>				
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			140
Thermal coefficient of linear expansion	23-80°C long.	ISO 11359-1/-2	10 <sup>-4</sup> /K	1,3-1,6
<b>ELECTRICAL PROPERTIES</b>				
Dielectric constant	1MHz	IEC 60250		3,3
Dissipation factor	1 MHz	IEC 60250		200
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

**Proxylene B97 LN** is a high viscosity PBT grade, with good processability, for the extrusion of tubes for optical fibers, cables, pipes and profiles. It is lubricated and nucleated to get an outstanding processability.

### APPLICATIONS

**Proxylene B97 LN** is used in a wide range of applications where a combination of mechanical properties, thermal resistance and dimensional stability are needed. Typical applications include tubes for optical fibers, cables, pipes and profiles.

### FORMAT AND STORAGE

**Proxylene B97 LN** 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.

#### Extrusion

The recommended melt temperature for extrusion is:

Melt temperature: 230-290°C

### 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.