

Ultradur® B 6550 LN
PBT

BASF

High viscosity extrusion grade for loose-buffer tubes in fibre optical cable applications and for semi-finished products, profiles and tubes and sheet.

Abbreviated designation according to ISO 1043-1: PBT

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	9.5	cm³/10min	ISO 1133
Temperature	250	°C	-
Load	2.16	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2600	MPa	ISO 527
Yield stress	56	MPa	ISO 527
Yield strain	3.5	%	ISO 527
Nominal strain at break	>50	%	ISO 527
Impact Strength (Charpy), +23°C	no break	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	220	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	5	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	5	kJ/m²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	223	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	50	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	135	°C	ISO 75-1/-2
Coeff. of Linear Therm. Expansion, parallel	115	E-6/K	ISO 11359-1/-2
Coeff. of Linear Therm. Expansion, normal	115	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB	class	UL 94
Thickness tested	1.5	mm	-
Burning Behav. at thickness h	HB	class	UL 94
Thickness tested	0.8	mm	-

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3.4	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.2	-	IEC 62631-2-1
Dissipation Factor, 100Hz	19	E-4	IEC 62631-2-1
Dissipation Factor, 1MHz	219	E-4	IEC 62631-2-1
Volume Resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface Resistivity	1E13	Ohm	IEC 62631-3-2
Electric Strength	39	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112

Other Properties	Value	Unit	Test Standard
ISO Data			
Water Absorption	0.4	%	Sim. to ISO 62
Humidity absorption	0.25	%	Sim. to ISO 62
Density	1300	kg/m³	ISO 1183

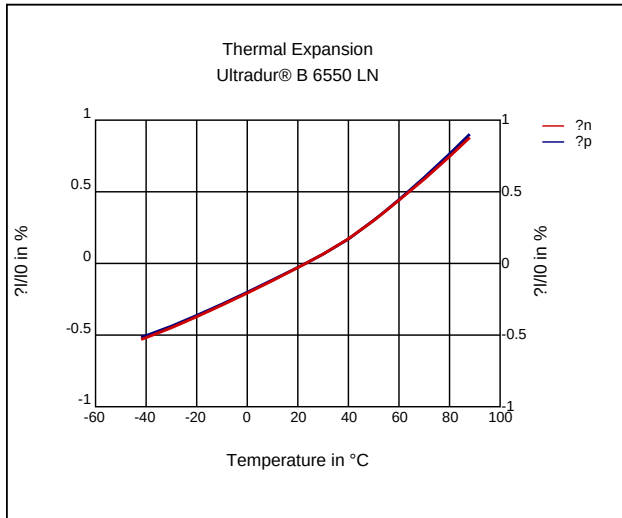
Material Specific Properties	Value	Unit	Test Standard
ISO Data			
Viscosity number	160	cm³/g	ISO 307, 1157, 1628

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, melt temperature	260	°C	ISO 294
Injection Molding, mold temperature	60	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80 - 120	°C	-
Pre-drying - Time	4	h	-
Processing humidity	≤0.04	%	-
Melt temperature	260 - 270	°C	-
Mold temperature	40 - 80	°C	-

Diagrams

Coeff. of linear thermal expansion, normal



Characteristics

Processing

Injection Molding, Film Extrusion, Profile Extrusion, Sheet Extrusion, Other Extrusion

Delivery form

Pellets

Injection Molding

PREPROCESSING

Pre/Post-processing, max. allowed water content: .04 %
Pre/Post-processing, Pre-drying, Temperature: 80 - 120 °C
Pre/Post-processing, Pre-drying, Time: 4 h

PROCESSING

injection molding, Melt temperature, range: 260 - 270 °C
injection molding, Melt temperature, recommended: 260 °C
injection molding, Mold temperature, range: 40 - 80 °C
injection molding, Mold temperature, recommended: 60 °C

Other Extrusion

PREPROCESSING

Pre/Post-processing, max. allowed water content: .04 %
Pre/Post-processing, Pre-drying, Temperature: 80 - 120 °C
Pre/Post-processing, Pre-drying, Time: 4 h

PROCESSING

Extrusion, Prepreg, Melt temperature: 250 - 270 °C
Extrusion, Pipes, Melt temperature: 250 - 270 °C
Extrusion, cable sheathing, Melt temperature: 260 - 270 °C

Profile extrusion

PREPROCESSING

Pre/Post-processing, max. allowed water content: .04 %
Pre/Post-processing, Pre-drying, Temperature: 80 - 120 °C
Pre/Post-processing, Pre-drying, Time: 4 h

PROCESSING

Extrusion, Profiles, Melt temperature: 250 - 270 °C

Sheet Extrusion

PREPROCESSING

Pre/Post-processing, max. allowed water content: .04 %
Pre/Post-processing, Pre-drying, Temperature: 80 - 120 °C
Pre/Post-processing, Pre-drying, Time: 4 h

PROCESSING

Extrusion, Plates, Melt temperature: 250 - 270 °C

Chemical Media Resistance

Acids

- ✓ Acetic Acid (5% by mass) (23°C)

Disclaimer

Liability Exclusion

These guide values are measured and provided by the product manufacturer and have been determined on standardised test specimens and can be affected by pigmentation, mould design and processing conditions. M-Base has taken the guide values from the producer's original Technical Data Sheet. **ALBIS AND M-BASE ARE THEREFORE NOT RESPONSIBLE FOR THE ACCURACY OF THE GUIDE VALUES AND CANNOT GIVE ANY WARRANTY WITH REGARD TO THEIR CORRECTNESS.**

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