

Ultradur® B 4440
PBT

BASF

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	20	cm³/10min	ISO 1133
Temperature	275	°C	-
Load	2.16	kg	-
Molding shrinkage, parallel	2.3	%	ISO 294-4, 2577
Molding shrinkage, normal	2.1	%	ISO 294-4, 2577

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2100	MPa	ISO 527
Yield stress	30	MPa	ISO 527
Yield strain	3.5	%	ISO 527
Strain at Break	20	%	ISO 527
Impact Strength (Charpy), +23°C	60	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	40	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	3	kJ/m²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Melting Temperature (10°C/min)	222	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	55	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	135	°C	ISO 75-1/-2
Burning Behav. at thickness h	V-0	class	UL 94
Thickness tested	0.4	mm	-
UL recognition	yes	-	-
Oxygen index	42.9	%	ISO 4589-1/-2
Glow Wire (GWFI, Flammability Index)	960	°C	IEC 60695-2-12
GWFI - thickness tested (1)	1	mm	-

Electrical Properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	3	-	IEC 62631-2-1
Dissipation Factor, 1MHz	160	E-4	IEC 62631-2-1
Volume Resistivity	1E13	Ohm*m	IEC 62631-3-1
Surface Resistivity	1E16	Ohm	IEC 62631-3-2
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	1310	kg/m³	ISO 1183
Bulk density	750	kg/m³	-

Material Specific Properties	Value	Unit	Test Standard
ISO Data			
Viscosity number	135	cm³/g	ISO 307, 1157, 1628

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Processing humidity	≤0.04	%	-
Melt temperature	250 - 275	°C	-
Mold temperature	60 - 100	°C	-

Processing Recommendation Extrusion	Value	Unit	Test Standard
Melt temperature	250 - 275	°C	-

Characteristics

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Processing

Injection Molding, Other Extrusion

Special Characteristics

Flame retardant, Halogen-free, Impact modified

Delivery form

Pellets