

Ultradur® B 6550 LN

Polybutylene Terephthalate (PBT)



Product Description

Ultradur B 6550 LN is a high viscosity PBT extrusion grade.

Applications

Typical applications include semi-finished products, profile and hollow rods.

PHYSICAL	ISO Test Method	Property Value
Density, g/cm ³	1183	1.30
Viscosity Number, cm ³ /g	1628	160
Mold Shrinkage, parallel, %	294-4	1.9
Mold Shrinkage, normal, %	294-4	2.2
Moisture, %	62	
(50% RH)		0.25
(Saturation)		0.4
RHEOLOGICAL	ISO Test Method	Property Value
Melt Volume Rate (250 C/2.16 Kg), cc/10min.	1133	9.5
MECHANICAL	ISO Test Method	Property Value
Tensile Modulus, MPa	527	
23C		2,600
Tensile stress at yield, MPa	527	
23C		56
Tensile strain at yield, %	527	
23C		3.5
Nominal strain at break, %	527	
23C		>50
Flexural Strength, MPa	178	
23C		76
Flexural Modulus, MPa	178	
23C		2,030
IMPACT	ISO Test Method	Property Value
Charpy Notched, kJ/m ²	179	
23C		6
Charpy Unnotched, kJ/m ²	179	
-30C		220
23C		N
THERMAL	ISO Test Method	Property Value
Melting Point, C	3146	223
HDT A, C	75	50
HDT B, C	75	135
ELECTRICAL	ISO Test Method	Property Value
Comparative Tracking Index	IEC 60112	475
Volume Resistivity (Ohm-m)	IEC 60093	5E13

Surface Resistivity (Ohm)	IEC 60093	>1E15
Dielectric Constant (100 Hz)	IEC 60250	3.4
Dielectric Constant (1 MHz)	IEC 60250	3.2
Dissipation Factor (100 Hz), E-4	IEC 60250	19
Dissipation Factor (1 MHz), E-4	IEC 60250	219

Processing Guidelines

Material Handling

Max. Water content: 0.04%

To ensure optimum part performance, this product must be dried prior to molding and maintained at a moisture level of less than 0.04%. Dehumidifying or desiccant dryers operating at 100-120C (212-248F) at 4 hours drying time is recommended. Further information concerning safe handling procedures can be obtained from the Safety Data Sheet. Alternatively, please contact your BASF representative.

Typical Profile

Melt Temperature 230-290C (446-554F)

Temperature Settings (C):

Extruder 250/240/230C (482/464/446F)
Adaptor 225 deg C (437 def F)
Die 215 deg C (419 deg F)

Screw Parameters

Metering Section	45%
Transition Section	3 to 4 flights
Feed Section	balance of screw length
Compression Ratio	3:1
L/D Ratio	20:1

Tooling & Sizing

Die to Finished Tube dia. 2.0-2.5:1 Die Gap 3-4 times the desired wall thickness

The vacuum water calibration method is recommended when producing tube diameters 8 mm and below. Water temperature should be 20 deg C (68 deg F).

Note

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