

# Ultradur® B 6550 LN

## PBT (Polybutylene Terephthalate)



### 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 <sup>3</sup>	1183	1.30
Viscosity Number, cm <sup>3</sup> /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
IMPACT	ISO Test Method	Property Value
Charpy Notched, kJ/m <sup>2</sup>	179	
23C		6
Charpy Unnotched, kJ/m <sup>2</sup>	179	
23C		N
-30C		220
THERMAL	ISO Test Method	Property Value
Melting Point, C	3146	223
HDT A, C	75	50
ELECTRICAL	ISO Test Method	Property Value
Comparative Tracking Index	IEC 60112	475
Volume Resistivity	IEC 60093	5E13
Surface Resistivity	IEC 60093	>1E15
Dielectric Constant (100 Hz)	IEC 60250	3.4
Dielectric Constant (1 MHz)	IEC 60250	3.2



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Dissipation Factor (100 Hz)	IEC 60250	19
Dissipation Factor (1 MHz)	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 100-120 degC (212-248 degF) at 4 hours drying time is recommended. Further information concerning safe handling procedures can be obtained from the Material Safety Data Sheet. Alternatively, please contact your BASF representative.

### Typical Profile

Melt Temperature 230-290 degC (446-554 degF)

Temperature Settings (degC):

Extruder 250/240/230 degC (482/464/446 degF)

Adaptor 225 deg C (437 deg 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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