

# Ultradur<sup>®</sup> 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	
23°C		2,600
Tensile stress at yield, MPa	527	
23°C		56
Tensile strain at yield, %	527	
23°C		3.5
Nominal strain at break, %	527	
23°C		>50
Flexural Strength, MPa	178	
23°C		76

IMPACT	ISO Test Method	Property Value
Charpy Notched, kJ/m <sup>2</sup>	179	
23°C		6
Charpy Unnotched, kJ/m <sup>2</sup>	179	
-30°C		220
23°C		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)	IEC 60093	5E13
Surface Resistivity (Ohm-m)	IEC 60093	>1E15
Dielectric Constant (100 Hz)	IEC 60250	3.4
Dielectric Constant (1 MHz)	IEC 60250	3.2
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°C (212-248°F) 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 230-290°C (446-554°F)

Temperature Settings (°C):

Extruder 250/240/230°C (482/464/446°F)

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**

Although all statements and information in this publication are believed to be accurate and reliable, they are presented gratis and for guidance only, and risks and liability for results obtained by use of the products or application of the suggestions described are assumed by the user. NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH. Statements or suggestions concerning possible use of the products are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The user should not assume that toxicity data and safety measures are indicated or that other measures may not be required.

BASF Corporation  
Engineering Plastics  
1609 Biddle Avenue  
Wyandotte, MI 48192

General Information: 800-BC-RESIN  
Technical Assistance: 800-527-TECH (734-324-5150)  
Web address: <http://www.plasticsportal.com/usa>

