

Ultradur® B 6550 FC

PBT (Polybutylene Terephthalate)



Product Description

Ultradur B 6550 FC is a high viscosity food contact PBT extrusion grade.

Applications

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

PHYSICAL	ISO Test Method	Property Value
Density, g/cm	1183	1.30
Viscosity Number, cm/g	1628	160
Mold Shrinkage, parallel, %	294-4	1.7
Mold Shrinkage, normal, %	294-4	2.1
MECHANICAL	ISO Test Method	Property Value
Tensile Modulus, MPa	527	
23C		2,400
Tensile stress at yield, MPa	527	
23C		54
Tensile strain at yield, %	527	
23C		3.5
Nominal strain at break, %	527	
23C		100
Flexural Strength, MPa	178	
23C		85
Ball Indentation, MPa	2039-1	130
Tensile Creep Modulus (1000h), MPa	899	1,100
IMPACT	ISO Test Method	Property Value
Charpy Notched, kJ/m ²	179	
23C		6
Charpy Unnotched, kJ/m ²	179	
23C		N
THERMAL	ISO Test Method	Property Value
Melting Point, C	3146	223
HDT A, C	75	55
Coef. of Linear Thermal Expansion, Parallel, mm/mm C		1.45 X10-4
ELECTRICAL	ISO Test Method	Property Value
Comparative Tracking Index	IEC 60112	600
Volume Resistivity	IEC 60093	1E14
Surface Resistivity	IEC 60093	1E13
Dielectric Constant (100 Hz)	IEC 60250	3.3
Dielectric Constant (1 MHz)	IEC 60250	3.3
Dissipation Factor (100 Hz)	IEC 60250	10
Dissipation Factor (1 MHz)	IEC 60250	200



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 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).

