

# Ultradur® B 2550

## PBT (Polybutylene Terephthalate)



### Product Description

Ultradur B 2550 is an unfilled, easy flow PBT offering good heat resistance.

### Applications

Applications include monofilament, bristles and heat-resistant coatings on paper and board used for packaging frozen foods and oven-ready meals. Also for injection molding applications that call for high flowability.

PHYSICAL	ISO Test Method	Property Value
Density, g/cm	1183	1.3
Viscosity Number, cm/g	1628	107
Mold Shrinkage, parallel, %	294-4	1.6
Mold Shrinkage, normal, %	294-4	1.91
Moisture, %	62	
(50% RH)		0.25
(Saturation)		0.5
RHEOLOGICAL	ISO Test Method	Property Value
Melt Volume Rate (250 C/2.16 Kg), cc/10min.	1133	40
MECHANICAL	ISO Test Method	Property Value
Tensile Modulus, MPa	527	
23C		2,500
Tensile stress at yield, MPa	527	
-40C		94
23C		60
Tensile strain at yield, %	527	
23C		3.7
Nominal strain at break, %	527	
23C		35
Flexural Modulus, MPa	178	
23C		2,200
Tensile Creep Modulus (1000h), MPa	899	1,100
Tensile Creep Modulus (1h), MPa	899	1,500
IMPACT	ISO Test Method	Property Value
Izod Notched Impact, kJ/m <sup>2</sup>	180	
23C		4
Charpy Notched, kJ/m <sup>2</sup>	179	
23C		6
-30C		4
Charpy Unnotched, kJ/m <sup>2</sup>	179	
23C		250
THERMAL	ISO Test Method	Property Value
Melting Point, C	3146	223
HDT A, C	75	65



BASF Corporation  
Engineering Plastics  
609 Biddle Avenue  
Yandotte, MI 48192



# Ultradur® B 2550

Coef. of Linear Thermal Expansion, Parallel,  
mm/mm C

1.45 X10-4

ELECTRICAL	ISO Test Method	Property Value
Comparative Tracking Index	IEC 60112	500
Volume Resistivity	IEC 60093	>1E13
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	13
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 260-270 degC (500-518 degF)

Typical Temperature Profile:

Zone 1: 260-265 degC (500-509 degF)  
Zone 2: 265-275 degC (509-527 degF)  
Zone 3: 260-270 degC (500-518 degF)  
Zone 4: 255-265 degC (491-509 degF)  
Head: 260-270 degC (500-518 degF)  
Pump: 260-270 degC (500-518 degF)  
Die Zones: 260-270 degC (500-518 degF)

Recommended Screw:

Three section screw: 6D/7D/9D + 3D

Compression Ratio: 3.5:1 to 4:1

L/D Ratio: 25:1 minimum

Water Bath Temperature: 45-60 degC (113-140 degF)

## 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  
609 Biddle Avenue  
Yandotte, MI 48192

