

# 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	ASTM Test Method	Property Value
Specific Gravity	D-792	1.3
Mold Shrinkage (1/8" bar, in/in)		0.014
Moisture, %	D-570	
(50% RH)		0.25
(Saturation)		0.5
MECHANICAL	ASTM Test Method	Property Value
Tensile Strength, Yield, MPa (psi)	D-638	
23C (73F)		60 (8,700)
Elongation, Yield, %	D-638	
23C (73F)		3.7
Flexural Modulus, MPa (psi)	D-790	
23C (73F)		2,210 (320,000)
IMPACT	ASTM Test Method	Property Value
Notched Izod Impact, J/M (ft-lbs/in)	D-256	
-40C (-40F)		37 (0.7)
23C (73F)		43 (0.8)
THERMAL	ASTM Test Method	Property Value
Melting Point, C(F)	D-3418	223 (433)
Heat Deflection @ 264 psi (1.8 MPa) C(F)	D-648	67 (152)
Heat Deflection @ 66 psi (.45 MPa) C(F)	D-648	164 (327)
Coef. of Linear Thermal Expansion, mm/mm C (in/in F)	E-831	0.2 X10-4
ELECTRICAL	ASTM Test Method	Property Value
Volume Resistivity, 1.5 mm	D-257	>1E13
Surface Resistivity, 1.5 mm	D-257	1E13

### 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

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