



Ultradur® B 2550 FC

BASF Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

General Information

Product Description

Ultradur B 2550 FC is an unfilled, easy flow PBT offering good heat resistance. This grade is a food contact grade.

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.

General

Material Status	• Commercial: Active
Availability	• Europe • North America
Features	• Food Contact Acceptable • Good Heat Resistance • High Flow
Uses	• Food Packaging • Monofilaments • Paper Coatings
Agency Ratings	• EC 1907/2006 (REACH)
RoHS Compliance	• RoHS Compliant
Forms	• Pellets
Processing Method	• Extrusion • Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.30	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	40	cm ³ /10min	ISO 1133
Viscosity Number (Reduced Viscosity)	107.0	ml/g	ISO 1628
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	363000	psi	ISO 527-2
Tensile Stress (Yield, 73°F)	8270	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	3.7	%	ISO 527-2
Nominal Tensile Strain at Break (73°F)	35	%	ISO 527-2
Tensile Creep Modulus (1000 hr)	160000	psi	ISO 899-1
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	2.9	ft-lb/in ²	ISO 179
Charpy Unnotched Impact Strength (73°F)	120	ft-lb/in ²	ISO 179
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness	18900	psi	ISO 2039-1
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	329	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	149	°F	ISO 75-2/A
Melting Temperature (DSC)	433	°F	ISO 3146
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+13	ohms	IEC 60093
Volume Resistivity	1.0E+16	ohms·cm	IEC 60093
Dielectric Constant			IEC 60250
100 Hz	3.30		
1 MHz	3.30		

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Electrical	Nominal Value	Unit	Test Method
Dissipation Factor			IEC 60250
100 Hz	1.3E-3		
1 MHz	0.020		
Comparative Tracking Index	500	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		UL 94

Processing Information

Extrusion	Nominal Value	Unit
Drying Temperature	212 to 248	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.040	%
Cylinder Zone 1 Temp.	500 to 509	°F
Cylinder Zone 2 Temp.	509 to 527	°F
Cylinder Zone 3 Temp.	500 to 518	°F
Cylinder Zone 4 Temp.	491 to 509	°F
Melt Temperature	500 to 518	°F
Head Temperature	500 to 518	°F
Die Temperature	500 to 518	°F
Extruder Screw L/D Ratio	>25.0:1.0	
Extruder Screw Compression Ratio	3.5:1.0 to 4.0:1.0	

Extrusion Notes

Pump: 260-270°C (500-518°F)
 Recommended Screw: Three section screw: 6D/7D/9D + 3D
 Water Bath Temperature: 45-60°C (113-140°F)

Notes

¹ Typical properties: these are not to be construed as specifications.