



Ultradur® B 4300 G4 FC

BASF Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

General Information

Product Description

Ultradur B 4300 G4 FC is a easy flowing injection molding food contact PBT with 20% glass fiber reinforcement for rigid, tough, and dimensionally stable parts.

General

Material Status	• Commercial: Active
Availability	• Europe • North America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight
Features	• Food Contact Acceptable • Good Flow • Good Toughness • Good Dimensional Stability • Good Rigidity
Agency Ratings	• EC 1907/2006 (REACH)
RoHS Compliance	• RoHS Compliant
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.45	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	14	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.2	%	
Flow	0.43	%	
Water Absorption (Saturation, 73°F)	0.40	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Viscosity Number (Reduced Viscosity)	107.0	ml/g	ISO 1628
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	1.02E+6	psi	ISO 527-2
Tensile Stress (Break, 73°F)	16700	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.5	%	ISO 527-2
Flexural Stress (73°F)	24700	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	2.9	ft·lb/in ²	ISO 179
Charpy Unnotched Impact Strength			ISO 179
-22°F	26	ft·lb/in ²	
73°F	28	ft·lb/in ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	428	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	401	°F	ISO 75-2/A
Melting Temperature (DSC)	433	°F	ISO 3146
CLTE - Flow	1.9E-5	in/in/°F	

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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	3.70		
1 MHz	3.70		
Dissipation Factor			IEC 60250
100 Hz	1.2E-3		
1 MHz	0.015		
Comparative Tracking Index	300	V	IEC 60112

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	212 to 248	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.040	%
Processing (Melt) Temp	482 to 518	°F
Mold Temperature	140 to 212	°F
Injection Pressure	500 to 1500	psi
Injection Rate	Fast	
Back Pressure	< 145	psi

Notes

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