Ultradur® B 4300 G2 BK05110

BASF Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

General Information

Product Description

Ultradur B 4300 G2 BK05110 is a pigmented black, easy flowing injection molding PBT with 10% glass fiber reinforcement for rigid, tough, and dimensionally stable parts.

Applications
Typical applications include timer dials, toggles, knobs, parts for thermostats, oven-door handles, toaster housings and grills.

General		
Material Status	• Commercial: Active	
Availability	• North America	
Filler / Reinforcement	• Glass Fiber, 10% Filler by Weight	
Features	• Good Dimensional Stability • Good Flow	• Good Rigidity • Good Toughness
Uses	• Electrical/Electronic Applications • Handles	• Housings • Knobs
Agency Ratings	• EC 1907/2006 (REACH)	
RoHS Compliance	• RoHS Compliant	
Automotive Specifications	• FORD WSK-M4D749-A • GM GMW15702-120014 Color: Black	• GM GMW16733P-PBT-GF10 Color: Black • GM GMW16733P-PBT-GF10 Color: Natural
Appearance	• Black	
Forms	• Pellets	
Processing Method	• Injection Molding	

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.37	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	16	cm³/10min	ISO 1133
Water Absorption (24 hr, 73°F)	0.20	%	ISO 62
Water Absorption (Saturation, 73°F)	0.40	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Viscosity Number (Reduced Viscosity)	116.0	ml/g	ISO 1628
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (73°F)	609000	psi	ISO 527-2
Tensile Stress (Break, 73°F)	12300	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.5	%	ISO 527-2
Flexural Modulus (73°F)	609000	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact Strength (73°F)	2.2	ft·lb/in²	ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (264 psi, Unannealed)	365	°F	ISO 75-2/A
Melting Temperature (DSC)	433	°F	ISO 3146

Ultradur® B 4300 G2 BK05110

BASF Corporation - Polybutylene Terephthalate

Thermal	Nominal Value	Unit	Test Method
RTI Elec			UL 746
0.030 in	266	°F	
0.06 in	266	°F	
0.12 in	266	°F	
RTI Imp			UL 746
0.030 in	257	°F	
0.06 in	257	°F	
0.12 in	257	°F	
RTI Str			UL 746
0.030 in	257	°F	
0.06 in	257	°F	
0.12 in	284	°F	

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.030 in	HB		
0.06 in	HB		
0.12 in	HB		

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	508 to 1810	psi
Injection Rate	Fast	
Back Pressure	< 145	psi

Notes

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