



Petra® 330 FR BK112

BASF Corporation - Polyethylene Terephthalate

Tuesday, November 5, 2019

General Information

Product Description

Petra 330 FR BK112 is a 30% glass reinforced, flame retardant PET, pigmented black injection molding compound rated UL94 V-0 in a 1/64 inch thickness. The product is designed for injection molding of thin and complex parts such as electrical bobbins. Due to its high crystallization rate the processability of the product in the injection molding process is very good. It exhibits excellent balance of properties including strength, stiffness, HDT, dimensional resistance and electrical properties.

Applications

Electrical/electronic application including connectors, bobbins, sockets, coils, switches, relays, covers and housings.

General

Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Features	• Flame Retardant • Good Dimensional Stability	• Good Electrical Properties • Good Processability	• Good Stiffness • Good Strength
Uses	• Bobbins • Connectors	• Electrical/Electronic Applications • Housings	• Protective Coverings • Switches
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.67		ASTM D792
Molding Shrinkage - Flow (0.125 in)	3.0E-3	in/in	
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
Break, -40°F	24700	psi	
Break, 73°F	19600	psi	
Break, 176°F	11900	psi	
Break, 250°F	8700	psi	
Tensile Elongation			ASTM D638
Break, -40°F	2.0	%	
Break, 73°F	2.0	%	
Break, 176°F	4.1	%	
Break, 250°F	5.7	%	
Flexural Modulus (73°F)	1.44E+6	psi	ASTM D790
Flexural Strength (73°F)	31200	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	1.7	ft-lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed	433	°F	

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Thermal	Nominal Value	Unit	Test Method
Peak Melting Temperature	482	°F	ASTM D3418
RTI Elec			UL 746
0.012 in	167	°F	
0.030 in	311	°F	
0.06 in	311	°F	
0.12 in	311	°F	
RTI Imp			UL 746
0.012 in	167	°F	
0.030 in	311	°F	
0.06 in	311	°F	
0.12 in	311	°F	
RTI Str			UL 746
0.012 in	167	°F	
0.030 in	311	°F	
0.06 in	311	°F	
0.12 in	311	°F	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity (0.0591 in)	> 1.0E+13	ohms·cm	ASTM D257
Dielectric Strength (0.0591 in, Method A (Short-Time))	740	V/mil	ASTM D149
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.012 in	V-0		
0.030 in	V-0		
0.06 in	V-0		
0.12 in	V-0		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	248	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.020	%
Processing (Melt) Temp	536 to 572	°F
Mold Temperature	212 to 230	°F
Injection Pressure	508 to 1810	psi
Injection Rate	Fast	

Notes

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