Petra® 330 FR BK-112

Polyethylene Terephthalate

BASF Corporation

Message:

Petra 330 FR BK-112 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, ciol, switches, relays, covers and housings.

General Information				
UL YellowCard	E36632-231236			
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			
Multi-Point Data	Isothermal Stress vs. Strain (ISO 114	Isothermal Stress vs. Strain (ISO 11403-1)		
	Secant Modulus vs. Strain (ISO 11403-1)			
Physical	Nominal Value	Unit	Test Method	
Specific Gravity	1.67	g/cm³	ASTM D792	
Molding Shrinkage - Flow (3.18 mm)	0.30	%		
Hardness	Nominal Value	Unit	Test Method	
Rockwell Hardness (R-Scale)	118		ASTM D785	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Strength			ASTM D638	
Break, -40°C	170	MPa		

Drying Temperature	120	°C	
Injection	Nominal Value	Unit	
3.00 mm	V-0		
1.50 mm	V-0		
0.750 mm	V-0		
0.300 mm	V-0		
Flame Rating			UL 94
Flammability	Nominal Value	Unit	Test Method
Dielectric Strength ¹ (1.50 mm)	29	kV/mm	ASTM D149
Volume Resistivity (1.50 mm)	> 1.0E+13	ohms·cm	ASTM D257
Electrical	Nominal Value	Unit	Test Method
3.00 mm	155	°C	
1.50 mm	155	°C	
0.750 mm	155	°C	
0.300 mm	75.0	°C	
RTI Str			UL 746
3.00 mm	155	°C	
1.50 mm	155	°C	
0.750 mm	155	°C	
0.300 mm	75.0	°C	
RTI Imp			UL 746
3.00 mm	155	°C	
1.50 mm	155	°C	
0.750 mm	155	°C	
0.300 mm	75.0	°C	
RTI Elec			UL 746
Peak Melting Temperature	250	°C	ASTM D3418
MPa, Unannealed)	223	°C	ASTM D648
Deflection Tomperature Under Load (1.0		Utill	
		J/m	ASTM D256
Impact	Nominal Value	Unit	Test Method
Flexural Strength (23°C)	215	МРа	ASTM D790
Hexural Modulus (23°C)	9930	МРа	ASTM D790
Break, 121°C	5.7	%	
Break, 80°C	4.1	%	
Break, 23°C	2.0	%	
Break, -40°C	2.0	%	
Tensile Elongation			ASTM D638
Break, 121°C	60.0	MPa	
Break, 80°C	82.0	MPa	
Break, 23°C	135	МРа	

Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.020	%
Processing (Melt) Temp	280 to 300	°C
Mold Temperature	100 to 110	°C
Injection Pressure	3.50 to 12.5	MPa
Injection Rate	Fast	
NOTE		
1.	Method A (Short-Time)	

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