

Petra® 130 FR

Polyethylene Terephthalate

BASF Corporation

Message:

Petra 130 FR is a 30% glass fiber reinforced, flame retardant injection molding compound based on post-consumer and post-industrial recycle polyethylene terephthalate feedstocks. It is recognized as UL 94V-0/5VA by Underwriters Laboratories. It is also available in pigmented versions.

Applications

Petra 130 FR is generally recommended for applications such as electrical housing and bobbins.

General Information			
UL YellowCard	E36632-231235		
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Recycled Content	Yes		
Features	Flame Retardant		
Uses	Bobbins		
	Electrical Housing		
Appearance	Colors Available		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.68	g/cm ³	ASTM D792, ISO 1183
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 Modulus (23°C)	11100	MPa	ISO 527-2
Tensile Strength (Break, 23°C)	130	MPa	ASTM D638, ISO 527-2
Tensile Elongation (Break, 23°C)	2.0	%	ASTM D638, ISO 527-2
Flexural Modulus			ASTM D790
-40°C	12400	MPa	
23°C	9700	MPa	
121°C	2970	MPa	
Flexural Strength			ASTM D790
-40°C	275	MPa	
23°C	210	MPa	
121°C	85.0	MPa	
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	90	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			

0.45 MPa, Unannealed	240	°C	ISO 75-2/B
1.8 MPa, Unannealed	220	°C	ASTM D648
1.8 MPa, Unannealed	210	°C	ISO 75-2/A
Peak Melting Temperature	245	°C	ASTM D3418, ISO 3146
CLTE - Flow	2.4E-5	cm/cm/°C	ASTM E831
RTI Elec			UL 746
0.300 mm	75.0	°C	
0.750 mm	155	°C	
1.50 mm	155	°C	
3.00 mm	155	°C	
RTI Imp			UL 746
0.300 mm	75.0	°C	
0.750 mm	155	°C	
1.50 mm	155	°C	
3.00 mm	155	°C	
RTI Str			UL 746
0.300 mm	75.0	°C	
0.750 mm	155	°C	
1.50 mm	155	°C	
3.00 mm	155	°C	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity			
1.50 mm	> 1.0E+13	ohms·cm	ASTM D257
--	> 1.0E+13	ohms·cm	IEC 60093
Dielectric Strength			
1.50 mm ¹	22	kV/mm	ASTM D149
--	40	kV/mm	IEC 60243-1
Dielectric Constant			IEC 60250
100 Hz	3.80		
1 MHz	3.60		
Dissipation Factor			IEC 60250
100 Hz	0.020		
1 MHz	0.020		
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.300 mm	V-0		
	V-0		
0.750 mm	5VA		

V-0

1.50 mm

5VA

V-0

3.00 mm

5VA

Injection	Nominal Value	Unit
Drying Temperature	120	°C
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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