

Petra® 130 BK-112

Polyethylene Terephthalate

BASF Corporation

Message:

Petra 130 BK-112 is a 30% glass fiber reinforced, black pigmented polyethylene terephthalate injection molding compound. It exhibits a superb combination of performance properties including good strength and stiffness at elevated temperatures. It also has good chemical resistance and dimensional stability, and adequate ductility for most applications.

Applications

Petra 130 BK-112 is generally recommended for applications such as automotive door lock components, housings, gears and electrical and mechanical components.

General Information			
UL YellowCard	E36632-231234		
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Features	Good Chemical Resistance		
	Good Dimensional Stability		
	Good Stiffness		
	Good Strength		
Uses	Automotive Applications		
	Electrical Parts		
	Gears		
	Housings		
	Machine/Mechanical Parts		
Appearance	Black		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.55	g/cm ³	ASTM D792, ISO 1183
Molding Shrinkage - Flow (3.18 mm)	0.40	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	10200	MPa	ISO 527-2
Tensile Strength			
Break, 23°C	145	MPa	ASTM D638, ISO 527-2
Break, -40°C	211	MPa	ISO 527-2
Break, 121°C	54.0	MPa	ISO 527-2
Tensile Elongation (Break, 23°C)	3.0	%	ASTM D638, ISO 527-2
Flexural Modulus			
23°C	8760	MPa	ASTM D790

23°C	8250	MPa	ISO 178
Flexural Strength (23°C)	230	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-30°C	8.5	kJ/m ²	
23°C	9.0	kJ/m ²	
Notched Izod Impact			
23°C	95	J/m	ASTM D256
-40°C	8.5	kJ/m ²	ISO 180
23°C	9.5	kJ/m ²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	235	°C	ASTM D648
0.45 MPa, Unannealed	240	°C	ISO 75-2/B
1.8 MPa, Unannealed	215	°C	ASTM D648
1.8 MPa, Unannealed	210	°C	ISO 75-2/A
Peak Melting Temperature	245	°C	ASTM D3418, ISO 3146
CLTE - Flow	2.3E-5	cm/cm/°C	ASTM E831
RTI Elec			UL 746
0.750 mm	140	°C	
1.50 mm	140	°C	
3.00 mm	140	°C	
RTI Imp			UL 746
0.750 mm	140	°C	
1.50 mm	140	°C	
3.00 mm	140	°C	
RTI Str			UL 746
0.750 mm	140	°C	
1.50 mm	140	°C	
3.00 mm	140	°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
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.750 mm	HB		
1.50 mm	HB		
3.00 mm	HB		
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	

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



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