

Petra® 130

Polyethylene Terephthalate

BASF Corporation

Message:

Petra 130 is a 30% glass fiber reinforced polyethylene terephthalate injection molding compound. It is available in natural and pigmented versions. It exhibits a superb combination of performance properties including high strength and stiffness at elevated temperatures with good chemical resistance and dimensional stability.

Applications

Petra 130 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
	High Stiffness
	High Strength
Uses	Automotive Applications
	Electrical Parts
	Gears
	Housings
	Machine/Mechanical Parts
Appearance	Colors Available
	Natural Color
Forms	Pellets
Processing Method	Injection Molding
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)
	Secant Modulus vs. Strain (ISO 11403-1)
	Shear Modulus vs. Temperature (ISO 11403-1)

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			ISO 527-2
-40°C	10400	MPa	

23°C	10200	MPa	
80°C	4950	MPa	
121°C	2940	MPa	
Tensile Strength			ASTM D638, ISO 527-2
Break, -40°C	210	MPa	
Break, 23°C	155	MPa	
Break, 80°C	80.0	MPa	
Break, 121°C	65.0	MPa	
Tensile Elongation			
Break, 23°C	3.0	%	ASTM D638
Break, 23°C	3.5	%	ISO 527-2
Flexural Modulus			ASTM D790
-40°C	9660	MPa	
23°C	8970	MPa	
65°C	6130	MPa	
90°C	3440	MPa	
121°C	2830	MPa	
Flexural Strength			ASTM D790
-40°C	275	MPa	
23°C	240	MPa	
65°C	170	MPa	
90°C	105	MPa	
121°C	85.0	MPa	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	9.0	kJ/m ²	ISO 179
Notched Izod Impact (23°C)	95	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	2.3E-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
Dielectric Strength			
1.50 mm ¹	22	kV/mm	ASTM D149
--	40	kV/mm	IEC 60243-1
Dielectric Constant			IEC 60250
100 Hz	3.70		
1 MHz	3.50		
Dissipation Factor			IEC 60250
100 Hz	0.020		
1 MHz	0.020		
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		
NOTE			
1.	Method A (Short-Time)		

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