

# Petra® 130

## Polyethylene Terephthalate

### BASF Corporation

#### Product Description

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.

#### General

Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber Reinforcement, 30% Filler by Weight		
Features	• Good Chemical Resistance • Good Creep Resistance • Good Dimensional Stability	• Good Thermal Stability • High Heat Resistance • High Rigidity	• High Stiffness • High Strength
Uses	• Automotive Applications • Electrical Parts	• Gears • Housings	
Agency Ratings	• ULC Unspecified Rating		
Appearance	• Colors Available	• Natural Color	• Opaque
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 11403-2)

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.55	g/cm <sup>3</sup>	ASTM D792
--	1550	kg/m <sup>3</sup>	ISO 1183 <sup>2</sup>
Molding Shrinkage - Flow (3.18 mm)	0.40	%	ASTM D955

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-40°C	10400	MPa	ISO 527-2
80°C	4950	MPa	ISO 527-2
121°C	2940	MPa	ISO 527-2
--	10200	MPa	ISO 527-2 <sup>2</sup>
Tensile Strength			
Break, -40°C	210	MPa	ASTM D638 ISO 527-2
Break, 23°C	155	MPa	ASTM D638
Break, 80°C	80.0	MPa	ASTM D638 ISO 527-2
Break, 121°C	65.0	MPa	ASTM D638 ISO 527-2
Break	155	MPa	ISO 527-2 <sup>2</sup>
Tensile Elongation			
Break, 23°C	3.0	%	ASTM D638
Break	3.5	%	ISO 527-2 <sup>2</sup>
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	

Dongguan Yi-Ming Plastic Chemical Co., Ltd.

如需要更多物性资料请查阅 [www.kedisujiao.com](http://www.kedisujiao.com)

备注：以上原料物性数据由厂家发布,我公司仅提供参考！数据如有变动，请联系原料生产厂家获知。我公司不承担任何法律责任！

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Impact	Nominal Value	Unit	Test Method
Charpy notched impact strength (23°C)	9.00	kJ/m <sup>2</sup>	ISO 179/1eA <sup>2</sup>
Notched Izod Impact (23°C)	95.0	J/m	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			
0.45 MPa	240	°C	ISO 75-2 <sup>2</sup>
1.8 MPa, Unannealed	220	°C	ASTM D648
1.8 MPa	210	°C	ISO 75-2 <sup>2</sup>
Melting Temperature	245	°C	ASTM D3418 ISO 3146
CLTE - Flow	0.000023	cm/cm/°C	ASTM E831
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity			
1.50 mm	> 1.0E+13	ohm·cm	ASTM D257
--	> 1.0E+11	ohm·m	IEC 60093 <sup>2</sup>
Dielectric Strength			
1.50 mm <sup>3</sup>	22	kV/mm	ASTM D149
--	40	kV/mm	IEC 60243-1 <sup>2</sup>
Relative Permittivity			IEC 60250 <sup>2</sup>
100 Hz	3.70		
1 MHz	3.50		
Dissipation Factor			IEC 60250 <sup>2</sup>
100 Hz	200		
1 MHz	200		
Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL (1.50 mm)	HB		UL 94
UL 746	Nominal Value	Unit	Test Method
RTI Str (1.50 mm)	140	°C	UL 746
RTI Imp (1.50 mm)	140	°C	UL 746
RTI Elec (1.50 mm)	140	°C	UL 746
Injection	Nominal Value	Unit	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.010	%	
Processing (Melt) Temp	280 to 300	°C	
Mold Temperature	100 to 110	°C	
Injection Pressure	3.50 to 12.5	MPa	
Injection Rate	Fast		

**Notes**

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

<sup>3</sup> Method A (Short-Time)

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