

Petra® 140

Polyethylene Terephthalate

BASF Corporation

Product Description			
Petra 140 is a 45% glass reinforced polyethylene terephthalate (PET) injection molding compound offering an increased level of strength, stiffness, high temperature performance, dimensional stability. Excellent resistance to creep under load, and maintains the inherent chemical and electrical properties associated with polyesters.			
General			
Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber Reinforcement, 45% Filler by Weight		
Features	• Good Chemical Resistance	• Good Electrical Properties	• High Heat Resistance
	• Good Creep Resistance	• Good Stiffness	• High Strength
	• Good Dimensional Stability	• Good Strength	
Uses	• Automotive Applications	• Electrical Parts	• Structural Parts
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.70	g/cm ³	ASTM D792
--	1700	kg/m ³	ISO 1183 ²
Molding Shrinkage - Flow (3.18 mm)	0.20	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile modulus	16200	MPa	ISO 527-2 ²
Tensile Strength			
Break, 23°C	180	MPa	ASTM D638
Break	180	MPa	ISO 527-2 ²
Tensile Elongation			
Break, 23°C	3.0	%	ASTM D638
Break	3.0	%	ISO 527-2 ²
Flexural Modulus			ASTM D790
-40°C	14500	MPa	
23°C	13100	MPa	
121°C	4690	MPa	
Flexural Strength			
-40°C	370	MPa	ASTM D790
23°C	285	MPa	ASTM D790
121°C	110	MPa	ASTM D790
23°C	255	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy notched impact strength (23°C)	11.5	kJ/m ²	ISO 179/1eA ²
Notched Izod Impact (23°C)	110	J/m	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	116		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa	242	°C	ISO 75-2 ²
1.8 MPa, Unannealed	225	°C	ASTM D648
1.8 MPa	220	°C	ISO 75-2 ²
Melting Temperature	245	°C	ASTM D3418 ISO 3146
CLTE - Flow	0.000022	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 ²

Dongguan Yi-Ming Plastic Chemical Co., Ltd.

如需要更多物性资料请查阅 www.kedisujiao.com

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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	

Notes

¹ Typical properties: these are not to be construed as specifications.

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

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