

BASF Petra® 130 30% Glass Filled PET

Category : Polymer , Thermoplastic , Polyester, TP , Polyethylene Terephthalate (PET) , Polyethylene Terephthalate (PET), 30% Glass Reinforced

Material Notes:

Petra 130 is a 30% glass fiber reinforced polyethylene terephthalate (PET) for injection molding applications. It exhibits a good combination of performance properties including high strength and stiffness at elevated temperatures with good chemical resistance and dimensional stability.

Order this product through the following link:

http://www.lookpolymers.com/polymer_BASF-Petra-130-30-Glass-Filled-PET.php

Physical Properties	Metric	English	Comments
Density	1.32 g/cc	0.0477 lb/in ³	Melt; ISO 1183
	1.55 g/cc	0.0560 lb/in ³	ISO 1183
Viscosity Measurement	0.55	0.55	Inherent Viscosity
Linear Mold Shrinkage	0.0040 cm/cm	0.0040 in/in	ASTM Data; MD

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	118	118	ASTM Test
Tensile Strength at Break	155 MPa	22500 psi	0.2 in/min; ASTM Test
	65.0 MPa	9430 psi	ISO Data
	@Temperature 120 °C	@Temperature 248 °F	
	65.0 MPa	9430 psi	ASTM Test
	@Temperature 120 °C	@Temperature 248 °F	
	80.0 MPa	11600 psi	ASTM Test
	@Temperature 80.0 °C	@Temperature 176 °F	
	80.0 MPa	11600 psi	ISO Data
	@Temperature 80.0 °C	@Temperature 176 °F	
	210 MPa	30500 psi	ISO Data
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	210 MPa	30500 psi	ASTM Test
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Tensile Strength, Ultimate	155 MPa	22500 psi	5mm/min; ISO 527
Elongation at Break	3.0 %	3.0 %	0.2 in/min; ASTM Test

Mechanical Properties	Metric	English	Comments
Tensile Modulus	10.2 GPa	1480 ksi	1mm/min; ISO 527
	2.94 GPa	426 ksi	ISO Data
	@Temperature 120 °C	@Temperature 248 °F	
	4.95 GPa	718 ksi	ISO Data
	@Temperature 80.0 °C	@Temperature 176 °F	
	10.4 GPa	1510 ksi	ISO Data
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Flexural Strength	240 MPa	34800 psi	ASTM Test
	85.0 MPa	12300 psi	ASTM Test
	@Temperature 120 °C	@Temperature 248 °F	
	105 MPa	15200 psi	ASTM Test
	@Temperature 93.0 °C	@Temperature 199 °F	
	170 MPa	24700 psi	ASTM Test
	@Temperature 65.0 °C	@Temperature 149 °F	
	275 MPa	39900 psi	ASTM Test
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Flexural Modulus	8.97 GPa	1300 ksi	ASTM Test
	2.83 GPa	410 ksi	ASTM Test
	@Temperature 120 °C	@Temperature 248 °F	
	3.44 GPa	499 ksi	ASTM Test
	@Temperature 93.0 °C	@Temperature 199 °F	
	6.13 GPa	889 ksi	ASTM Test
	@Temperature 65.0 °C	@Temperature 149 °F	
Izod Impact, Notched	0.950 J/cm	1.78 ft-lb/in	ASTM Test
	@Thickness 3.17 mm	@Thickness 0.125 in	
Charpy Impact, Notched	0.900 J/cm ²	4.28 ft-lb/in ²	ISO 179

Thermal Properties	Metric	English	Comments
CTE, linear	23.0 µm/m-°C	12.8 µin/in-°F	
	@Temperature -30.0 -	@Temperature -22.0 -	ASTM Test

Thermal Properties	30.0 °C Metric	86.0 °F English	Comments
CTE, linear, Parallel to Flow	23.0 µm/m-°C	12.8 µin/in-°F	ASTM Test
Specific Heat Capacity	2.287 J/g-°C	0.5466 BTU/lb-°F	Melt
Thermal Conductivity	0.300 W/m-K	2.08 BTU-in/hr-ft ² -°F	Melt
Melting Point	245 °C	473 °F	10 K/min
	245 °C	473 °F	ASTM Test
Deflection Temperature at 0.46 MPa (66 psi)	240 °C	464 °F	ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	210 °C	410 °F	ISO 75
	220 °C	428 °F	ASTM Test
Flammability, UL94	HB	HB	
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	HB	HB	
	@Thickness 3.00 mm	@Thickness 0.118 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+13 ohm-cm	>= 1.00e+13 ohm-cm	IEC 60093
Dielectric Constant	3.5	3.5	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	3.7	3.7	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	40.0 kV/mm	1020 kV/in	IEC 60243-1
Dissipation Factor	0.020	0.020	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	0.020	0.020	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	

Processing Properties	Metric	English	Comments
Melt Temperature	275 °C	527 °F	Injection molding
Mold Temperature	115 °C	239 °F	Injection molding

Injection Velocity Processing Properties	115 mm/sec Metric	4.53 in/sec English	Injection molding Comments
Descriptive Properties	Value		Comments
Color	Natural		
Commercial Status	Active America		
Form	Pellets		
Impact Modified	No		
Primary Processing Technique	Injection Molding		
Processing	Injection Molding		
UL..UL-C	Yes		

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