



Petra® 130 BK112

BASF Corporation - Polyethylene Terephthalate

Tuesday, November 5, 2019

General Information

Product Description

Petra 130 BK112 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 BK112 is generally recommended for applications such as automotive door lock components, housings, gears and electrical and mechanical components.

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Features	• Chemical Resistant • Good Dimensional Stability • Good Stiffness • Good Strength
Uses	• Automotive Applications • Electrical Parts • Gears • Housings • Machine/Mechanical Parts
Automotive Specifications	• CHRYSLER MS-DB-400 • CPN2621 Color: Black • FORD WSS-M4D726-A3
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.55		ASTM D792
Density	1.55	g/cm ³	ISO 1183
Molding Shrinkage - Flow (0.125 in)	4.0E-3	in/in	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	1.48E+6	psi	ISO 527-2
Tensile Strength (Break, 73°F)	21000	psi	ASTM D638
Tensile Stress			ISO 527-2
Break, -40°F	30600	psi	
Break, 73°F	21000	psi	
Break, 248°F	7830	psi	
Break, 302°F	6090	psi	
Tensile Elongation (Break, 73°F)	3.0	%	ASTM D638
Tensile Strain			ISO 527-2
Break, -40°F	2.3	%	
Break, 73°F	3.0	%	
Break, 248°F	4.0	%	
Break, 302°F	4.0	%	
Flexural Modulus (73°F)	1.27E+6	psi	ASTM D790
Flexural Modulus (73°F)	1.20E+6	psi	ISO 178
Flexural Strength (73°F)	33400	psi	ASTM D790

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Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F	4.0	ft·lb/in ²	
73°F	4.3	ft·lb/in ²	
Notched Izod Impact (73°F)	1.8	ft·lb/in	ASTM D256
Notched Izod Impact Strength			ISO 180
-40°F	4.0	ft·lb/in ²	
73°F	4.5	ft·lb/in ²	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	455	°F	ASTM D648
Heat Deflection Temperature (66 psi, Unannealed)	464	°F	ISO 75-2/B
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed	419	°F	
Heat Deflection Temperature (264 psi, Unannealed)	410	°F	ISO 75-2/A
Peak Melting Temperature	473	°F	ASTM D3418
Melting Temperature (DSC)	473	°F	ISO 3146
CLTE - Flow	1.3E-5	in/in/°F	ASTM E831
RTI Elec			UL 746
0.030 in	284	°F	
0.06 in	284	°F	
0.12 in	284	°F	
RTI Imp			UL 746
0.030 in	284	°F	
0.06 in	284	°F	
0.12 in	284	°F	
RTI Str			UL 746
0.030 in	284	°F	
0.06 in	284	°F	
0.12 in	284	°F	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity (0.0591 in)	> 1.0E+13	ohms·cm	ASTM D257
Volume Resistivity	> 1.0E+13	ohms·cm	IEC 60093
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.030 in	HB		
0.06 in	HB		
0.12 in	HB		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	248	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.020	%
Processing (Melt) Temp	536 to 572	°F
Mold Temperature	212 to 230	°F
Injection Pressure	508 to 1810	psi
Injection Rate	Fast	

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Notes

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