Petra® 230 BK-112

Polyethylene Terephthalate

BASF Corporation

Message:

Petra 230 BK-112 is a 35% mineral and glass fiber reinforced, black pigmented, polyethylene terephthalate injection molding compound. It exhibits a very good combination of performance properties including high strength and stiffness with ductility at elevated temperatures, good chemical resistance, dimensional stability and warp resistance.
Applications
Petra 230 BK-112 is generally recommended for applications such as automotive door lock components, housings, gears and electrical and mechanical components.

General Information	
Filler / Reinforcement	Glass\Mineral,35% Filler by Weight
Features	Good Chemical Resistance
	Good Dimensional Stability
	High Stiffness
	High Strength
	Warp Resistant
Uses	Automotive Applications
	Electrical Parts
	Gears
	Housings
	Machine/Mechanical Parts
Appearance	Black
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	1.61	g/cm³	ASTM D792, ISO 1183
Molding Shrinkage - Flow (3.18 mm)	0.30	%	
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	12300	MPa	
23°C	11700	MPa	
80°C	4120	MPa	

121°C	2590	MPa	
Tensile Strength			ASTM D638, ISO 527-2
Break, -40°C	145	MPa	
Break, 23°C	115	MPa	
Break, 80°C	60.0	MPa	
Break, 121°C	45.0	MPa	
Tensile Elongation			
Break, -40°C	1.6	%	ASTM D638
Break, 23°C	2.0	%	ASTM D638, ISO 527-2
Break, 80°C	6.3	%	ASTM D638
Break, 121°C	8.1	%	ASTM D638
Flexural Modulus			
23°C	9050	MPa	ASTM D790
23°C	8760	MPa	ISO 178
Flexural Strength (23°C)	180	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179
-30°C	5.5	kJ/m^2	
23°C	6.0	kJ/m^2	
Notched Izod Impact			
23°C	55	J/m	ASTM D256
23°C	6.0	kJ/m^2	ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, Unannealed	240	°C	ISO 75-2/B
1.8 MPa, Unannealed	206	°C	ASTM D648
1.8 MPa, Unannealed	210	°C	ISO 75-2/A
Peak Melting Temperature	245	°C	ASTM D3418, ISO 3146
CLTE - Flow	2.2E-5	cm/cm/°C	ASTM E831
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 310	°C	
Mold Temperature	100 to 110	°C	
Injection Pressure	3.50 to 12.5	MPa	
Injection Rate	Fast		

Recommended distributors for this material

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