Product Information **Petra®**

110

10/2023 **PET-GF15**

Product description

Petra® 110 is a 15% glass fiber reinforced compound based on post-consumer recycle polyethylene terephthalate injection molding compound. It is available in pigmented versions. It exhibits a superb combination of performance properties including good strength and stiffness at elevated temperatures with good chemical resistance and dimensional stability.

Petra® 110 is generally recommended for applications such as automotive door lock components, housings, gears and electrical and mechanical components.

Injection Molding

PROCESSING
injection molding, Melt temperature, range 280 - 300
injection molding, Mold temperature, range 100 - 110

Material Handling

Max. Water content: 0.02%

To ensure optimum part performance, this product must be dried prior to molding and maintained at a moisture level of less than 0.02%, with a preferred moisture target of less than 0.015%. A dehumidifying hopper dryer mounted on the molding machine and equipped with alternating desiccant beds and air temperature/dew point indicators is recommended. Drying time is 2 - 4 hours at 120°C (248°F). Further information concerning safe handling procedures can be obtained from the Safety Data Sheet. Alternatively, please contact your BASF representative.

Note

BASF Corporation
48192 Wyandotte, USA

Petra® 110

Product Information

We create chemistry

Typical values for uncoloured product at 23 °C[1]	Test method	Unit	Values[2]
Properties			
Polymer abbreviation	-	-	**PET-GF15**
Filler content: Glass fiber (GF), glass balls (GB), Mineral (M)	-	%	**GF15**
Density	ISO 1183	kg/m³	**1420**
Processing			
Melt temperature, Injection moulding/Extrusion	-	°C	**280 - 300**
Mould temperature, Injection moulding	-	°C	**100 - 110**
Flammability			
Burning Behav. at 1.5 mm nom. thickn.	IEC 60695-11-10	class	**HB**
Burning Behav. at thickness d = 0.81 mm	IEC 60695-11-10	class	**HB**
UL 94 rating at 1 mm thickness	UL-94, IEC 60695	class	**HB**
UL 94 rating at 2 mm thickness	UL-94, IEC 60695	class	**HB**
UL 94 rating at 3 mm thickness	UL-94, IEC 60695	class	**HB**
RTI, electrical, d = 0.8 mm	UL-746B	°C	**140**
RTI, electrical, d = 1.6 mm	UL-746B	°C	**140**
RTI, electrical, d = 3.2 mm	UL-746B	°C	**140**
RTI, mechanical, under impact stress, d = 0.8 mm	UL-746B	°C	**140**
RTI, mechanical, under impact stress, d = 1.6 mm	UL-746B	°C	**140**
RTI, mechanical, under impact stress, d = 3.2 mm	UL-746B	°C	**140**
RTI, mechanical, without impact stress, d = 0.8 mm	UL-746B	°C	**140**
RTI, mechanical, without impact stress, d = 1.6 mm	UL-746B	°C	**140**
RTI, mechanical, without impact stress, d = 3.2 mm	UL-746B	°C	**140**
Mechanical properties			
Tensile modulus	ISO 527-1/-2	MPa	**6400**
Stress at break	ISO 527-1/-2	MPa	**106**
Strain at break	ISO 527-1/-2	%	**4**
Flexural modulus	ISO 178	MPa	**5800**
Charpy unnotched impact strength (23°C)	ISO 179/1eU	kJ/m²	**22**
Charpy notched impact strength (23°C)	ISO 179/1eA	kJ/m²	**6.4**
Izod notched impact strength (23°C)	ISO 180/A	kJ/m²	**5.9**
Thermal properties			
Melting temperature, DSC	ISO 11357-1/-3	°C	**245**
HDT A (1.80 MPa)	ISO 75-1/-2	°C	**190**
HDT B (0.45 MPa)	ISO 75-1/-2	°C	**231**
Coefficient of linear thermal expansion, longitudinal (23-80)°C	ISO 11359-1/-2	E-6/K	**32**
Coefficient of linear thermal expansion, transverse(23-80)°C	ISO 11359-1/-2	E-6/K	**79**
Electrical properties			
Volume resistivity	IEC 62631-3-1	Ohm*m	**>1E13**

Footnotes
1) If product name or properties don't state otherwise.
2) The asterisk symbol '*' signifies inapplicable properties.

BASF Corporation

48192 Wyandotte, USA