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

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. In order to check the availability of products please contact us or our sales agency.

Petra® 110

Product Information



| Typical values for uncoloured product at 23 °C¹) | Test method | Unit | Values ²⁾ |
|--|---|--|--|
| Properties | | | |
| Polymer abbreviation Filler content: Glass fiber (GF), glass balls (GB), Mineral (M) Density | - - ISO 1183 | - % kg/m³ | PET-GF15 GF15 1420 |
| Processing | | | |
| Melt temperature, Injection moulding/Extrusion Mould temperature, Injection moulding | <u>-</u> | °C °C | 280 - 300 100 - 110 |
| Flammability | | | |
| Burning Behav. at 1.5 mm nom. thickn. Burning Behav. at thickness d = 0.81 mm UL 94 rating at 1 mm thickness UL 94 rating at 2 mm thickness UL 94 rating at 3 mm thickness UL 94 rating at 3 mm thickness RTI, electrical, d = 0.8 mm RTI, electrical, d = 1.6 mm RTI, electrical, d = 3.2 mm RTI, mechanical, under impact stress, d = 0.8 mm RTI, mechanical, under impact stress, d = 1.6 mm RTI, mechanical, under impact stress, d = 3.2 mm RTI, mechanical, without impact stress, d = 0.8 mm RTI, mechanical, without impact stress, d = 1.6 mm RTI, mechanical, without impact stress, d = 1.6 mm RTI, mechanical, without impact stress, d = 3.2 mm | IEC 60695-11-10 IEC 60695-11-10 UL-94, IEC 60695 UL-94, IEC 60695 UL-746B | class class class class class °C | HB HB HB HB 140 140 140 140 140 140 140 140 |
| Mechanical properties | | | |
| Tensile modulus Stress at break Strain at break Flexural modulus Charpy unnotched impact strength (23°C) Charpy notched impact strength (23°C) Izod notched impact strength (23°C) | ISO 527-1/-2 ISO 527-1/-2 ISO 527-1/-2 ISO 178 ISO 179/1eU ISO 179/1eA ISO 180/A | MPa MPa % MPa kJ/m² kJ/m² kJ/m² | 6400 106 4 5800 22 6.4 5.9 |
| Thermal properties | | | |
| Melting temperature, DSC HDT A (1.80 MPa) HDT B (0.45 MPa) Coefficient of linear thermal expansion, longitudinal (23-80)°C Coefficient of linear thermal expansion, transverse(23-80)°C | ISO 11357-1/-3 ISO 75-1/-2 ISO 75-1/-2 ISO 11359-1/-2 ISO 11359-1/-2 | °C °C °C E-6/K E-6/K | 245 190 231 32 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.