

Product Information

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Petra® 7010 BK5830 **Polyethylene Terephthalate (PET)**


Product Description

Petra 7010 BK5830 is a 15% glass fiber reinforced, pigmented black injection molding compound based on post-consumer recycle polyethylene terephthalate. Formulated for superior surface aesthetics, it exhibits excellent melt stability and high flow over a broad range of processing conditions. The combination of high strength and dimensional stability enable its use in structural applications designed for metal.

Applications

Petra 7010 BK5830 is recommended for applications such as appliance door handles and knobs.

PHYSICAL	ISO Test Method	Property Value
Density, g/cm ³	1183	1.44
MECHANICAL	ISO Test Method	Property Value
Tensile stress at break, MPa	527	
23C		97
Tensile strain at break, %	527	
23C		2.7
Flexural Modulus, MPa	178	
23C		6,300
IMPACT	ISO Test Method	Property Value
Izod Notched Impact, kJ/m ²	180	
23C		5
THERMAL	ISO Test Method	Property Value
Melting Point, C	3146	245
HDT A, C	75	190

Processing Guidelines
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 120C (248F). Further information concerning safe handling procedures can be obtained from the Safety Data Sheet. Alternatively, please contact your BASF representative.

Typical Profile

Melt Temperature 280-300C (536-572F)

Mold Temperature 100-110C (212-230F)

Injection and Packing Pressure 35-125 bar (500-1500 psi)

Mold Temperatures

This product can be processed over mold temperatures of 80-120C; however, for optimizing surface appearance, dimensional stability and part performance, mold surface temperatures of 100-110C (212-230F) are preferred.

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 Web address: <http://www.plasticsportal.com/usa>

Petra® 7010 BK5830**Pressures**

Injection pressure controls the filling of the part and should be applied for 90% of ram travel. Packing pressure affects the final part and can be used effectively in controlling sink marks and shrinkage. It should be applied and maintained until the gate area is completely frozen off.

Back pressure can be utilized to provide uniform melt consistency and reduce trapped air and gas. Minimal back pressure should be utilized to prevent glass breakage. recommended to minimize glass fiber breakage.

Fill Rate

Fast fill rates are recommended to ensure uniform melt delivery to the cavity and prevent premature freezing. Surface appearance is directly affected by injection rate.

Note

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