

Product Information

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Ultradur® B 4040 G6 HR BK15029 **Polybutylene Terephthalate/Polyethylene Terephthalate**


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Product Description

Ultradur B4040 G6 HR BK15029 is a hydrolysis resistant, 30% glass reinforced PBT/PET blend, exhibiting good mechanical properties and melt flow properties.

Applications

Ultradur B4040 G6 HR BK15029 is developed for solar and E/E applications.

PHYSICAL	ISO Test Method	Property Value
Density, g/cm³	1183	1.55
Viscosity Number, cm³/g	1628	97
MECHANICAL	ISO Test Method	Property Value
Tensile Modulus, MPa	527	
23°C		8,900
Tensile stress at break, MPa	527	
23°C		127
Tensile strain at break, %	527	
23°C		2.7
Flexural Strength, MPa	178	
23°C		220
Flexural Modulus, MPa	178	
23°C		9,050
IMPACT	ISO Test Method	Property Value
Izod Notched Impact, kJ/m²	180	
-40°C		7.1
23°C		8.2
Charpy Notched, kJ/m²	179	
-30°C		7.7
23°C		8.7
Charpy Unnotched, kJ/m²	179	
23°C		58
THERMAL	ISO Test Method	Property Value
Melting Point, °C	3146	223
HDT A, °C	75	200

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%. Dehumidifying or desiccant dryers operating at 100-120°C (212-248°F) at 4 hours drying time is recommended. Further information concerning safe handling procedures can be obtained from the Safety Data Sheet. Alternatively, please contact your BASF representative.

Typical Profile

Melt Temperature 250-275°C (482-527°F)

Mold Temperature 40-70°C (105-158°F)

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

Mold Temperatures

This product can be processed over mold temperatures of 60-80°C (140-176°F).

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. A maximum of 10 bar (145 psi) is recommended due to the risk of excessive shear.

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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