

Ultradur[®] B 4300 G6 HR LS BK15045

PBT (Polybutylene Terephthalate)

Product Description

Ultradur B 4300 G6 HR LS BK15045 is a hydrolysis resistant, laser markable, pigmented black, 30% fiberglass reinforced PBT for rigid and dimensionally stable technical parts.

PHYSICAL	ISO Test Method	Property Value
Density, g/cm ³	1183	1.52
Viscosity Number, cm ³ /g	1628	105
MECHANICAL	ISO Test Method	Property Value
Tensile Modulus, MPa	527	
23°C		8,500
Tensile stress at break, MPa	527	
23°C		130
Tensile strain at break, %	527	
23°C		3.5
Flexural Strength, MPa	178	
23°C		188
Flexural Modulus, MPa	178	
23°C		8,100
IMPACT	ISO Test Method	Property Value
Charpy Notched, kJ/m ²	179	
23°C		11
Charpy Unnotched, kJ/m ²	179	
-30°C		62
23°C		69
THERMAL	ISO Test Method	Property Value
Melting Point, °C	3146	223
HDT A, °C	75	205
HDT B, °C	75	220

Processing Guidelines

Material Handling

Max. Water content: 0.04%

To ensure optimum part performance, this product must be dried prior to molding and maintained at a moisture level of less than 0.04%. Dehumidifying or desiccant dryers operating at 100-120 degC (212-248 degF) 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 degC (482-527 degF)

Mold Temperature 40-70 degC (105-158 degF)

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

Mold Temperatures

This product can be processed over mold temperatures of 60-100 degC (140-212 degF).

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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