

Ultramid® B3WG5 BK00564

Polyamide 6

Product Description

Ultramid B3WG5 BK00564 is a 25% glass fiber reinforced, pigmented black injection molding PA6 grade with heataging resistance.

Applications

Typical applications include fan wheels.

| PHYSICAL | ISO Test Method | Property Value | |
|--|-----------------|----------------|-------------|
| Density, g/cm | 1183 | 1.31 | |
| RHEOLOGICAL | ISO Test Method | Dry | Conditioned |
| Melt Volume Rate (275 C/5 Kg), cc/10min. | 1133 | 50 | - |
| MECHANICAL | ISO Test Method | Dry | Conditioned |
| Tensile Modulus, MPa | 527 | | |
| 23C | | 7,700 | - |
| Tensile stress at yield, MPa | 527 | | |
| 23C | | 150 | - |
| Tensile stress at break, MPa | 527 | | |
| 23C | | 150 | - |
| Tensile strain at yield, % | 527 | | |
| 23C | | 3.3 | - |
| Tensile strain at break, % | 527 | | |
| 23C | | 3.6 | - |
| IMPACT | ISO Test Method | Dry | Conditioned |
| Izod Notched Impact, kJ/m ² | 180 | | |
| 23C | | 7.5 | 15 |
| -40C | | 6.5 | - |
| Charpy Notched, kJ/m ² | 179 | | |
| 23C | | 7.0 | - |
| THERMAL | ISO Test Method | Dry | Conditioned |
| Melting Point, C | 3146 | 220 | - |
| HDT A, C | 75 | 200 | - |
| HDT B, C | 75 | 210 | - |



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

Mold Temperatures

This product can be processed over a wide range of mold temperatures; however, for applications where aesthetics are critical, a mold surface temperature of 80-95 degC (176-203 degF) is recommended.

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.

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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