

# Ultramid® Structure B3WG10 LF BK564

## Polyamide 6



### Product Description

Ultramid Structure B3WG10 LF BK564 is a long glass-fiber fiber reinforced and heat aging resistant injection molding grade designed for applications requiring excellent strength and stiffness.

| PHYSICAL                               | ISO Test Method | Property Value |             |
|--|-----------------|----------------|-------------|
| Density, g/cm                          | 1183            | 1.56           |             |
| Mold Shrinkage, parallel, %            | 294-4           | 0.26           |             |
| Mold Shrinkage, normal, %              | 294-4           | 0.54           |             |
| MECHANICAL                             | ISO Test Method | Dry            | Conditioned |
| Tensile Modulus, MPa                   | 527             |                |             |
| 23C                                    |                 | 16,800         | 10,400      |
| 80C                                    |                 | 9,400          | -           |
| Tensile stress at break, MPa           | 527             |                |             |
| 23C                                    |                 | 240            | 155         |
| 80C                                    |                 | 143            | -           |
| Tensile strain at break, %             | 527             |                |             |
| 23C                                    |                 | 2              | 2.1         |
| Flexural Strength, MPa                 | 178             |                |             |
| 23C                                    |                 | 360            | -           |
| Flexural Modulus, MPa                  | 178             |                |             |
| 23C                                    |                 | 15,400         | -           |
| IMPACT                                 | ISO Test Method | Dry            | Conditioned |
| Izod Notched Impact, kJ/m <sup>2</sup> | 180             |                |             |
| 23C                                    |                 | 31             | 45          |
| Charpy Notched, kJ/m <sup>2</sup>      | 179             |                |             |
| 23C                                    |                 | 32             | 32          |
| -30C                                   |                 | 33             | 33          |
| Charpy Unnotched, kJ/m <sup>2</sup>    | 179             |                |             |
| 23C                                    |                 | 88             | 86          |
| -30C                                   |                 | 78             | 72          |
| THERMAL                                | ISO Test Method | Dry            | Conditioned |
| Melting Point, C                       | 3146            | 220            | -           |
| HDT A, C                               | 75              | 218            | -           |



# Ultramid® Structure B3WG10 LF BK564



Melt Temperature 280-300 degC (536-572 degF)  
Mold Temperature 80-100 degC (176-212 degF)  
Injection and Packing Pressure 35-125 bar (500-1500 psi)

## Mold Temperatures

A mold temperature of 80-100 degC (176-212 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

Although all statements and information in this publication are believed to be accurate and reliable, they are presented gratis and for guidance only, and risks and liability for results obtained by use of the products or application of the suggestions described are assumed by the user. NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH. Statements or suggestions concerning possible use of the products are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The user should not assume that toxicity data and safety measures are indicated or that other measures may not be required.

