

# Ultramid® TG3S BK5966

## Polyamide 6

### Product Description

Ultramid TG3S BK5966 is a 15% glass reinforced, heat stabilized, impact modified PA6 injection molding compound developed for applications requiring improved toughness in combination with a balance of strength, stiffness, excellent moldability and surface aesthetics.

### Applications

It is generally recommended for application such as window hardware, wheel chairs wheels, bicycle wheels, power tool housings, hose clamps, clips and fasteners.

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm	1183	1.21	
RHEOLOGICAL	ISO Test Method	Dry	Conditioned
Melt Volume Rate (235 C/5 Kg), cc/10min.	1133	15	-
MECHANICAL	ISO Test Method	Dry	Conditioned
Tensile stress at break, MPa	527		
23C		85	-
Tensile strain at break, %	527		
23C		3.5	-
Flexural Modulus, MPa	178		
23C		4,420	-
IMPACT	ISO Test Method	Dry	Conditioned
Izod Notched Impact, kJ/m <sup>2</sup>	180		
23C		10	-
THERMAL	ISO Test Method	Dry	Conditioned
Melting Point, C	3146	220	-
HDT A, C	75	180	-



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 required.

## **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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