Product Information

Aug 2020

Ultramid® A3W2G6 BK20560
Polyamide 66 + Polyamide 6

BASF
We create chemistry

Product Description

Ultramid A3W2G6 BK20560 is a developmental 30% glass fiber reinforced, pigmented black, injection molding PA66+PA6 with high heat aging resistance.

Applications

Applications include automotive powertrain applications like charge air coolers.

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm³	1183	1.36	
Moisture, %	62		
(50% RH)		1.5	
(Saturation)		5.4	
RHEOLOGICAL	**ISO Test Method**	**Dry**	**Conditioned**
Melt Volume Rate (275 C/5 Kg), cc/10min.	1133	20	-
MECHANICAL	**ISO Test Method**	**Dry**	**Conditioned**
Tensile Modulus, MPa	527		
23C		9,500	5,200
Tensile stress at break, MPa	527		
23C		180	100
Tensile strain at break, %	527		
23C		3.5	6.0
Flexural Strength, MPa	178		
23C		280	-
Flexural Modulus, MPa	178		
23C		8,700	-
IMPACT	**ISO Test Method**	**Dry**	**Conditioned**
Charpy Notched, kJ/m²	179		
-30C		9	-
23C		10	18
Charpy Unnotched, kJ/m²	179		
-30C		70	-
23C		90	110
THERMAL	**ISO Test Method**	**Dry**	**Conditioned**
Melting Point, C	3146	260	-
HDT A, C	75	230	-

Processing Guidelines

Material Handling
Max. Water content: 0.15%

BASF Corporation
Engineering Plastics
1609 Biddle Avenue
Wyandotte, MI 48192

China
Purchase information:+86 133 7623 1168

Product is supplied in sealed containers and drying prior to molding is not required. If drying becomes necessary, a dehumidifying or desiccant dryer operating at 80C (176F) is recommended. Drying time is dependent on moisture level, However 2-4 hours is generally sufficient. Recommended moisture levels for achieving optimum surface qualities and mechanical properties is 0.05% - 0.12%. Further information concerning safe handling procedures can be obtained from the Safety Data Sheet. Alternatively, please contact your BASF representative.

Typical Profile
Melt Temperature 280-305C (536-581F)
Mold Temperature 80-90C (176-194F)
Injection and Packing Pressure 35-125 bar (500-1500 psi)

Mold Temperatures
A mold temperature of 80-90C (176-194F) is recommended, however temperatures of as low as 45C (113F) and as high as 105C (221F) can be used where applicable.

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

BASF Corporation
Engineering Plastics
1609 Biddle Avenue
Wyandotte, MI 48192

China
Purchase information:+86 133 7623 1168