Product Information

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Ultramid® A3ZM2 BK30564
Polyamide 66

BASF
The Chemical Company

Product Description

Ultramid A3ZM2 BK30564 is a specially formulated, non-conductive polyamide based engineering resin for off-line paint applications. The A3ZM2 BK30564 is designed to provide high thermal and chemical resistance, predictable dimensional stability, thin wall processing and a Class A surface.

Applications

Typical applications include automotive mirror shells and fuel doors and automotive and industrial panels.

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm	1183	1.15	
MECHANICAL	**ISO Test Method**	**Dry**	**Conditioned**
Tensile Modulus, MPa	527		
23C		2,850	1,724
Tensile stress at yield, MPa	527		
23C		51	38
Tensile stress at break, MPa	527		
23C		49	37
Tensile strain at yield, %	527		
23C		4.1	71
Tensile strain at break, %	527		
23C		14.6	73
Flexural Strength, MPa	178		
23C		86	50
Flexural Modulus, MPa	178		
23C		2,880	1,730
IMPACT	**ISO Test Method**	**Dry**	**Conditioned**
Izod Notched Impact, kJ/m^2	180		
23C		8.1	11.1
-40C		5.5	4.7
Charpy Notched, kJ/m^2	179		
23C		8.5	11.4
-30C		5.4	4.5
Charpy Unnotched, kJ/m^2	179		
23C		160	NB
-30C		125	154
THERMAL	**ISO Test Method**	**Dry**	**Conditioned**
Melting Point, C	3146	260	-
HDT A, C	75	77	-
HDT B, C	75	192	-

Processing Guidelines

Material Handling

Max. Water content: 0.12%
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 80 degC (176 degF) is recommended. Drying time is dependent on moisture level, but 2-4 hours is generally sufficient. Further information concerning safe handling procedures can be obtained from the Material Safety Data Sheet. Alternatively, please contact your BASF representative.

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

Mold Temperatures
A mold temperature of 80-90 degC (176-194 degF) is recommended, but temperatures of as low as 45 degC (113 degF) and as high as 105 degC (221 degF) 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

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