

Product Information

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Ultramid® A3Z HP UV Polyamide 66


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Product Description

Ultramid A3Z HP UV is an impact modified PA66 containing heat and ultraviolet light stabilizers. Designed for maximum toughness at low temperatures, Ultramid A3Z HP UV offers a unique combination of impact performance and excellent processability.

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm³	1183	1.07	
MECHANICAL	ISO Test Method	Dry	Conditioned
Tensile Modulus, MPa	527		
23°C		1,800	-
Tensile stress at yield, MPa	527		
23°C		47	-
Nominal strain at break, %	527		
23°C		66	-
Flexural Modulus, MPa	178		
23°C		1,770	-
IMPACT	ISO Test Method	Dry	Conditioned
Izod Notched Impact, kJ/m²	180		
-40°C		21	-
23°C		80	-
Charpy Notched, kJ/m²	179		
-30°C		20	-
23°C		85	-
Charpy Unnotched, kJ/m²	179		
23°C		279	-
THERMAL	ISO Test Method	Dry	Conditioned
Melting Point, °C	3146	260	-
HDT A, °C	75	61	-

Processing Guidelines
Material Handling

Max. Water content: 0.20%

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°C (176°F) is recommended. Drying time is dependent on moisture level, however 2-4 hours is generally sufficient. Further information concerning safe handling procedures can be obtained from the Safety Data Sheet. Alternatively, please contact your BASF representative.

Typical Profile

Melt Temperature 280-304°C (536-579°F)

Mold Temperature 60-100°C (140-212°F)

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

Back Pressure 0-0.35 MPa (0-50 psi)

Screw Speed 40-80 rpm

Screw Compression Ratio 3:1 to 4:1

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 60-100°C (140-212°F) 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.

Note

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BASF Corporation
Engineering Plastics
1609 Biddle Avenue
Wyandotte, MI 48192

General Information: 800-BC-RESIN
Technical Assistance: 800-527-TECH (734-324-5150)
Web address: <http://www.plasticsportal.com/usa>

