

# Ultramid® A3H UN00002

## Polyamide 66



### Product Description

Ultramid A3H UN00002 is a high heat aging resistant, unreinforced injection molding PA66 grade for highly stressed parts such as bearing cages, gear-wheels, coil formers and cable connectors.

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm <sup>3</sup>	1183	1.13	
MECHANICAL	ISO Test Method	Dry	Conditioned
Tensile Modulus, MPa	527		
23C		2,970	-
Tensile stress at yield, MPa	527		
23C		82	-
Tensile strain at yield, %	527		
23C		4.5	-
Flexural Modulus, MPa	178		
23C		2,740	-
IMPACT	ISO Test Method	Dry	Conditioned
Izod Notched Impact, kJ/m <sup>2</sup>	180		
-40C		4.2	-
23C		5.3	-
Charpy Notched, kJ/m <sup>2</sup>	179		
-40C		2.5	-
23C		5.0	-
Charpy Unnotched, kJ/m <sup>2</sup>	179		
-30C		N	-
23C		N	-
THERMAL	ISO Test Method	Dry	Conditioned
Melting Point, C	3146	260	-
HDT A, C	75	73	-
HDT B, C	75	190	-

### 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 80C (176F) 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 280-300C (536-572F)

Mold Temperature 40-80C (104-176F)

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

## **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 40-80C (104-176F) 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.

## **Fill Rate**

Fast fill rates are recommended to ensure uniform melt delivery to the cavity and prevent premature freezing.

## **Note**

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