Product Information

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Ultramid® A3W Q601
Polyamide 66

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Product Description

Ultramid A3W Q601 is an unreinforced easy flowing, heat aging resistant injection molding PA66 grade for fast processing.

Applications

Typical applications include highly stressed parts such as bearings, bearing cages, gear-wheels, coil formers and cable connectors.

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm³	1183	1.14	
Moisture, %	62		
(50% RH)		2.8	
(Saturation)		8.5	
MECHANICAL	**ISO Test Method**	**Dry**	**Conditioned**
Tensile Modulus, MPa	527		
23C		3,000	-
Tensile stress at yield, MPa	527		
23C		83	-
Tensile strain at yield, %	527		
23C		4.6	-
Flexural Modulus, MPa	178		
23C		2,940	-
IMPACT	**ISO Test Method**	**Dry**	**Conditioned**
Izod Notched Impact, kJ/m²	180		
23C		5.5	-
Charpy Notched, kJ/m²	179		
23C		5	-
THERMAL	**ISO Test Method**	**Dry**	**Conditioned**
Melting Point, C	3146	260	-
HDT A, C	75	70	-

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)

BASF Corporation
Engineering Plastics
1609 Biddle Avenue
Wyandotte, MI 48192

China
Purchase information:+86 133 7623 1168

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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