

# Ultramid® A3K Q601

## Polyamide 66

### Product Description

Ultramid A3K Q601 is an unreinforced easy flowing, injection molding grade PA66.

### Applications

Typical applications include fast processing high stress technical parts.

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm <sup>3</sup>	1183	1.13	
Moisture, %	62		
(50% RH)		2.8	
(Saturation)		8.5	
MECHANICAL	ISO Test Method	Dry	Conditioned
Tensile Modulus, MPa	527		
23C		3,000	1,200
Tensile stress at yield, MPa	527		
23C		83	54
Tensile strain at yield, %	527		
23C		5	25
Nominal strain at break, %	527		
23C		25	>50
Flexural Strength, MPa	178		
23C		100	-
Flexural Modulus, MPa	178		
23C		2,800	1,100
IMPACT	ISO Test Method	Dry	Conditioned
Izod Notched Impact, kJ/m <sup>2</sup>	180		
23C		5.2	14
Charpy Notched, kJ/m <sup>2</sup>	179		
-30C		4	4
23C		5.7	16
Charpy Unnotched, kJ/m <sup>2</sup>	179		
-30C		N	N
23C		N	N
THERMAL	ISO Test Method	Dry	Conditioned
Melting Point, C	3146	260	-
HDT A, C	75	75	-

### 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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