

Product Information

Jan 2016

Ultramid® A3W BK00464 **Polyamide 66**


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Product Description

Ultramid A3W BK00464 is an easy flowing, pigmented black, 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	ASTM Test Method	Property Value	
Specific Gravity	D-792	1.14	
Moisture, %	D-570		
(50% RH)		2.8	
(Saturation)		8.5	
MECHANICAL	ASTM Test Method	Dry	Conditioned
Tensile Strength, Yield, MPa (psi)	D-638		
23°C (73°F)		85 (12,300)	-
Elongation, Yield, %	D-638		
23°C (73°F)		4.5	-
IMPACT	ASTM Test Method	Dry	Conditioned
Notched Izod Impact, J/M (ft-lbs/in)	D-256		
-40°C (-40°F)		48 (0.9)	-
23°C (73°F)		53 (1.0)	-
THERMAL	ASTM Test Method	Dry	Conditioned
Melting Point, °C(°F)	D-3418	260 (500)	-
UL RATINGS	UL Test Method	Property Value	
Flammability Rating, 0.75mm	UL94	V-2	
Relative Temperature Index, 0.75mm	UL746B		
Mechanical w/o Impact, °C		105	
Mechanical w/ Impact, °C		105	
Electrical, °C		130	
Flammability Rating, 1.5mm	UL94	V-2	
Relative Temperature Index, 1.5mm	UL746B		
Mechanical w/o Impact, °C		105	
Mechanical w/ Impact, °C		105	
Electrical, °C		130	
Flammability Rating, 3.0mm	UL94	V-2	
Relative Temperature Index, 3.0mm	UL746B		
Mechanical w/o Impact, °C		110	
Mechanical w/ Impact, °C		105	
Electrical, °C		130	
Flammability Rating, 6.0mm	UL94	V-2	
Relative Temperature Index, 6.0mm	UL746B		
Mechanical w/o Impact, °C		110	
Mechanical w/ Impact, °C		105	
Electrical, °C		130	

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 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 Safety Data Sheet. Alternatively, please contact your BASF representative.

Typical Profile

Melt Temperature 280-300 degC (536-572 degF)

Mold Temperature 40-80 degC (104-176 degF)

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 40-80 degC (104-176 degF) 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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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>


The Chemical Company