



Ultramid® A3K Q601

BASF Corporation - Polyamide 66

Monday, November 4, 2019

General Information

Product Description

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

Applications

Typical applications include fast processing high stress technical parts or electrically insulating parts.

General

Material Status	• Commercial: Active		
Availability	• North America		
Features	• Fast Molding Cycle	• Good Flow	• Oil Resistant
Uses	• Electronic Insulation		
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• FORD WSK-M4D648-A • FORD WSS-M4D648-B1	• FORD WSS-M4D648-B2 • GM GMP.PA66.005 Color: Natural	• GM GMW16036P-PA66 Color: Natural
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.13	--	g/cm ³	ISO 1183
Water Absorption				ISO 62
Saturation, 73°F	8.5	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 50% RH	2.8	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	435000	174000	psi	ISO 527-2
Tensile Stress (Yield, 73°F)	12000	7830	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	5.0	25	%	ISO 527-2
Nominal Tensile Strain at Break				ISO 527-2
73°F	25	> 50	%	
Flexural Modulus (73°F)	406000	160000	psi	ISO 178
Flexural Stress (73°F)	14500	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-22°F	1.9	1.9	ft·lb/in ²	
73°F	2.7	7.6	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179
-22°F	No Break	No Break		
73°F	No Break	No Break		
Notched Izod Impact Strength				ISO 180
73°F	2.5	6.7	ft·lb/in ²	

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Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature 264 psi, Unannealed	167	--	°F	ISO 75-2/A
Melting Temperature (DSC)	500	--	°F	ISO 3146
RTI Elec				UL 746
0.016 in	149	--	°F	
0.030 in	257	--	°F	
0.06 in	257	--	°F	
0.12 in	257	--	°F	
RTI Imp				UL 746
0.016 in	149	--	°F	
0.030 in	176	--	°F	
0.06 in	176	--	°F	
0.12 in	176	--	°F	
RTI Str				UL 746
0.016 in	149	--	°F	
0.030 in	176	--	°F	
0.06 in	185	--	°F	
0.12 in	194	--	°F	
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
0.016 in	V-2	--		
0.030 in	V-2	--		
0.06 in	V-2	--		
0.12 in	V-2	--		

Processing Information

Injection	Dry	Unit
Drying Temperature	176	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.20	%
Processing (Melt) Temp	536 to 572	°F
Mold Temperature	104 to 176	°F
Injection Pressure	508 to 1810	psi
Injection Rate	Fast	

Notes

¹ Typical properties: these are not to be construed as specifications.