



Ultramid® A3W2G6 BK20560

BASF Corporation - Polyamide 66/6 Copolymer

Monday, November 4, 2019

General Information

Product Description

Ultramid A3W2G6 BK20560 is a developmental 30% glass fiber reinforced, pigmented black, injection molding PA66+PA6 with high heat aging resistance.

Applications

Applications include automotive powertrain applications like charge air coolers.

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Features	• Heat Aging Resistant • Oil Resistant
Uses	• Automotive Applications
Agency Ratings	• EC 1907/2006 (REACH)
RoHS Compliance	• RoHS Compliant
Automotive Specifications	• FORD WSK-M4D642-A • FORD WSK-M4D752-A
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.36	--	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR)				ISO 1133
275°C/5.0 kg	20	--	cm ³ /10min	
Water Absorption				ISO 62
Saturation, 73°F	5.4	--	%	
Water Absorption				ISO 62
Equilibrium, 73°F, 50% RH	1.5	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	1.38E+6	754000	psi	ISO 527-2
Tensile Stress (Break, 73°F)	26100	14500	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.5	6.0	%	ISO 527-2
Flexural Modulus (73°F)	1.26E+6	--	psi	ISO 178
Flexural Stress (73°F)	40600	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179
-22°F	4.3	--	ft·lb/in ²	
73°F	4.8	8.6	ft·lb/in ²	
Charpy Unnotched Impact Strength				ISO 179
-22°F	33	--	ft·lb/in ²	
73°F	43	52	ft·lb/in ²	

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Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature 264 psi, Unannealed	446	--	°F	ISO 75-2/A
Melting Temperature (DSC)	500	--	°F	ISO 3146

Processing Information				
Injection	Dry Unit			
Drying Temperature	176	°F		
Drying Time	2.0 to 4.0	hr		
Suggested Max Moisture	0.15	%		
Processing (Melt) Temp	536 to 581	°F		
Mold Temperature	176 to 194	°F		
Injection Pressure	508 to 1810	psi		
Injection Rate	Fast			

Notes

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