



Ultramid® A3HG6 HR

BASF Corporation - Polyamide 66

Monday, November 4, 2019

General Information

Product Description

Ultramid A3HG6 HR is a 30% glass reinforced, injection molding PA66 grade. It offers good resistance to hydrolysis.

Applications

Typical applications include automotive radiator mounting frame.

General

Material Status	• Commercial: Active
Availability	• Europe • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Features	• Hydrolysis Resistant • Oil Resistant
Uses	• Automotive Applications
Agency Ratings	• EC 1907/2006 (REACH)
RoHS Compliance	• RoHS Compliant
Automotive Specifications	• FORD WSK-M4D752-A • FORD WSS-M4D752-B1 • GM GMW16270P-PA66-GF30 Color: Natural
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.37	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR)	25	cm ³ /10min	ISO 1133
Water Absorption (Saturation, 73°F)	5.5	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.7	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	1.46E+6	psi	ISO 527-2
Tensile Stress (Break, 73°F)	27300	psi	ISO 527-2
Tensile Strain (Break, 73°F)	3.3	%	ISO 527-2
Flexural Modulus (73°F)	1.28E+6	psi	ISO 178
Flexural Stress (73°F)	39900	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F	4.3	ft·lb/in ²	
73°F	5.2	ft·lb/in ²	
Charpy Unnotched Impact Strength			ISO 179
-22°F	30	ft·lb/in ²	
73°F	37	ft·lb/in ²	
Notched Izod Impact Strength			ISO 180
-40°F	3.9	ft·lb/in ²	
73°F	5.2	ft·lb/in ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	480	°F	ISO 75-2/A
Melting Temperature (DSC)	500	°F	ISO 3146

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Processing Information

Injection	Nominal Value	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.