



Ultramid® B3S HP

BASF Corporation - Polyamide 6

Monday, November 4, 2019

General Information

Product Description

Ultramid B3S HP is a easy flowing, finely crystalline, injection molding PA6 for fast processing.

Applications

Typical applications include thiwalled technical parts (eg housing, fittings, grips, small parts, anchors and fixing clamps)

General

Material Status	• Commercial: Active		
Availability	• North America		
Features	• Crystalline • Fast Molding Cycle	• Good Flow • Oil Resistant	
Uses	• Fittings	• Housings	• Thin-walled Parts
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.13	--	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) 275°C/5.0 kg	180	--	cm ³ /10min	ISO 1133
Water Absorption Saturation, 73°F	9.5	--	%	ISO 62
Water Absorption Equilibrium, 73°F, 50% RH	3.0	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (73°F)	493000	174000	psi	ISO 527-2
Tensile Stress (Yield, 73°F)	13100	6530	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	4.0	20	%	ISO 527-2
Nominal Tensile Strain at Break 73°F	10	> 50	%	ISO 527-2
Flexural Modulus (73°F)	435000	--	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength -22°F	1.4	--	ft·lb/in ²	ISO 179
73°F	1.9	24	ft·lb/in ²	
Charpy Unnotched Impact Strength -22°F	95	--	ft·lb/in ²	ISO 179
73°F	120 ft·lb/in ²	No Break		
Notched Izod Impact Strength -22°F	1.4	--	ft·lb/in ²	ISO 180
73°F	1.9 ft·lb/in ²	No Break		

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Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness	23200	--	psi	ISO 2039-1
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature 66 psi, Unannealed	356	--	°F	ISO 75-2/B
Heat Deflection Temperature 264 psi, Unannealed	149	--	°F	ISO 75-2/A
Melting Temperature (DSC)	428	--	°F	ISO 3146
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	1.0E+15	1.0E+12	ohms·cm	IEC 60093
Dielectric Constant (1 MHz)	3.30	7.00		IEC 60250
Dissipation Factor (1 MHz)	0.030	0.30		IEC 60250
Comparative Tracking Index	600	--	V	IEC 60112

Notes

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