Product Information

Mar 2007

Ultramid® 1000-2 NF2001
Polyamide 66 (Nylon 66)

BASF The Chemical Company

Product Description

Ultramid 1000-2 NF2001 is a general purpose PA6/6.

PHYSICAL	ASTM Test Method	Property Value	
Specific Gravity	D-792	1.14	
Mold Shrinkage (1/8" bar, in/in)		0.016	
Moisture, %	D-570		
(50% RH)		2.5	
(Saturation)		8.5	
MECHANICAL	**ASTM Test Method**	**Dry**	**Conditioned**
Tensile Strength, Yield, MPa (psi)	D-638		
23°C (73°F)		83 (12,000)	-
Elongation, Break, %	D-638		
23°C (73°F)		60	-
Flexural Modulus, MPa (psi)	D-790		
23°C (73°F)		2,900 (421,000)	-
Flexural Strength, MPa (psi)	D-790		
23°C (73°F)		117 (17,000)	-
IMPACT	**ASTM Test Method**	**Dry**	**Conditioned**
Notched Izod Impact, J/M (ft-lbs/in)	D-256		
23°C (73°F)		53 (1.0)	-
THERMAL	**ASTM Test Method**	**Dry**	**Conditioned**
Melting Point, °C(°F)	D-3418	257 (494)	-
Heat Deflection @ 264 psi (1.8 MPa) °C(°F)	D-648	77 (170)	-
Heat Deflection @ 66 psi (.45 MPa) °C(°F)	D-648	243 (469)	-

Processing Guidelines

Material Handling

Nylon 66 materials must be properly dried in order to provide parts with optimum strength and toughness. Nylon 66 materials are hygroscopic and will become degraded by excessive moisture during the injection molding process. For unopened bag/box, dry at 140 F (60C). For material exposed to the atmosphere, if additional drying time is needed, dry at 150 F (66 C) until the moisture level is between 0.04 and 0.20%. Do not overdry the resin.

Typical Profile

Melt Temperature: 280-305C (535 580F)
Mold Temperature: 60-100C (140-212F)
Injection Pressure: 35 125 MPa (5000 18000 psi)

Back Pressure: 0 0.35 MPa (0 50 psi)
Screw RPM 40 80
Screw Compression Ratio: 3:1 4:1

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 60-100C (140-212F) is recommended.

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1609 Biddle Avenue
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General Information: 800-BC-RESIN
Technical Assistance: 800-527-TECH (734-324-5150)
Web address: http://www.plasticsportal.com/usa

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 insure uniform melt delivery to the cavity and prevent premature freezing.

Note

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