

Ultramid® 8202 HS

Polyamide 6



Product Description

Ultramid 8202 HS is a heat stabilized, low viscosity, general purpose PA6 injection molding. It possesses the combination of strength and toughness and has excellent chemical and abrasion resistance. The heat stabilizer system extends the retention of properties at the more elevated temperatures. Excellent in filling thin walls or areas.

Applications

Ultramid 8202 HS is generally recommended for drapery hardware, gears, fittings, furniture casters, bearings, handles, clips, fasteners and thin parts.

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm	1183	1.13	
Moisture, %	62		
(24 Hour)		1.6	
(50% RH)		2.7	
(Saturation)		9.5	
MECHANICAL	ISO Test Method	Dry	Conditioned
Tensile Modulus, MPa	527		
23C		2,700	970
80C		485	550
121C		360	320
Tensile stress at yield, MPa	527		
-40C		126	110
23C		78	36
80C		35	30
121C		25	20
Tensile strain at yield, %	527		
23C		4	16
Nominal strain at break, %	527		
23C		25	>50
Flexural Strength, MPa	178		
23C		85	25
Flexural Modulus, MPa	178		
23C		2,400	770
IMPACT	ISO Test Method	Dry	Conditioned
Charpy Notched, kJ/m ²	179		
23C		3.5	-
Charpy Unnotched, kJ/m ²	179		
23C		N	-
-30C		51	-
THERMAL	ISO Test Method	Dry	Conditioned
Melting Point, C	3146	220	-
HDT A, C	75	60	-

ELECTRICAL	ISO Test Method	Dry	Conditioned
Comparative Tracking Index	IEC 60112	600	-
Volume Resistivity	IEC 60093	>1E13	-
Dielectric Strength, KV/mm	IEC 60243-1	37	-

UL RATINGS	UL Test Method	Property Value
Flammability Rating, 1.5mm	UL94	V-2
Relative Temperature Index, 1.5mm	UL746B	
Mechanical w/o Impact, C		105
Mechanical w/ Impact, C		105
Electrical, C		130

Processing Guidelines

Material Handling

Max. Water content: 0.15%

Product is supplied in sealed containers and drying prior to molding is not required. If drying becomes necessary, a dehumidifying or desiccant dryer operating at 80 degC (176 degF) is recommended. Drying time is dependent on moisture level, but 2-4 hours is generally sufficient. Further information concerning safe handling procedures can be obtained from the Material Safety Data Sheet. Alternatively, please contact your BASF representative.

Typical Profile

Melt Temperature 240-285 degC (464-545 degF)

Mold Temperature 65-80 degC (176-203 degF)

Injection and Packing Pressure 35-125 bar (500-1500 psi)

Mold Temperatures

A mold temperature of 65-80 degC (149-176 degF) is recommended, but temperatures of as low as 10 degC (50 degF) can be used where applicable.

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

Note

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