

## Ultramid® 8202 HS Polyamide 6

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 <sup>3</sup>	1183	1.13	
<b>Moisture, %</b>	62		
(24 Hour)		1.6	
(50% RH)		2.7	
(Saturation)		9.5	
MECHANICAL	ISO Test Method	Dry	Conditioned
<b>Tensile Modulus, MPa</b>	527		
23°C		2,700	970
80°C		485	550
120°C		360	320
150°C		290	310
<b>Tensile stress at yield, MPa</b>	527		
-40°C		126	110
23°C		78	36
80°C		35	30
120°C		25	20

150°C		20	15
<b>Tensile strain at yield, %</b>	527		
23°C		4	16
<b>Nominal strain at break, %</b>	527		
23°C		25	>50
<b>Flexural Strength, MPa</b>	178		
23°C		85	25
<b>Flexural Modulus, MPa</b>	178		
23°C		2,400	770
<b>IMPACT</b>			
	<b>ISO Test Method</b>	<b>Dry</b>	<b>Conditioned</b>
<b>Charpy Notched, kJ/m<sup>2</sup></b>	179		
23°C		3.5	-
<b>Charpy Unnotched, kJ/m<sup>2</sup></b>	179		
-30°C		51	-
23°C		N	-
<b>THERMAL</b>			
	<b>ISO Test Method</b>	<b>Dry</b>	<b>Conditioned</b>
Melting Point, °C	3146	220	-
HDT A, ° C	75	60	-
HDT B, ° C	75	150	-
<b>ELECTRICAL</b>			
	<b>ISO Test Method</b>	<b>Dry</b>	<b>Conditioned</b>
Comparative Tracking Index	IEC 60112	600	-
Volume Resistivity (Ohm-m)	IEC 60093	>1E13	-
Dielectric Strength, KV/mm	IEC 60243-1	37	-
<b>UL RATINGS</b>			
	<b>UL Test Method</b>	<b>Property Value</b>	
Flammability Rating, .71mm	UL94	V-2	
<b>Relative Temperature Index, .71mm</b>	UL746B		
Mechanical w/o Impact, °C		95	

Mechanical w/ Impact, °C		95
Electrical, °C		130
Flammability Rating, 1.5mm	UL94	V-2
<b>Relative Temperature Index, 1.5mm</b>	UL746B	
Mechanical w/o Impact, °C		105
Mechanical w/ Impact, °C		105
Electrical, °C		130
Flammability Rating, 3.0mm	UL94	V-2
<b>Relative Temperature Index, 3.0mm</b>	UL746B	
Mechanical w/o Impact, °C		105
Mechanical w/ Impact, °C		105
Electrical, °C		130
Flammability Rating, 6.0mm	UL94	V-2
<b>Relative Temperature Index, 6.0mm</b>	UL746B	
Mechanical w/o Impact, °C		105
Mechanical w/ Impact, °C		105
Electrical, °C		130

## Processing Guidelines

### Material Handling

Max. Water content: 0.15%

Material is supplied in sealed containers and drying prior to molding in a dehumidifying or desiccant dryer is recommended.

Drying parameters are dependent upon the actual percentage of moisture in the pellets and typical pre-drying conditions are 2-4 hours at 180F (83C). Further information concerning safe handling procedures can be obtained from the Safety Data Sheet (MSDS), or by contacting your BASF representative.

### Typical Profile

Melt Temperature: 240-285 °C (464-545 °F)

Mold Temperature: 65-80 °C (149-176 °F)

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

### Mold Temperatures

A mold temperature of 65-80 °C (149-176 °F) is recommended, however temperatures of as low as 10 °C (50 °F) 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

Although all statements and information in this publication are believed to be accurate and reliable, they are presented gratis and for guidance only, and risks and liability for results obtained by use of the products or application of the suggestions described are assumed by the user. NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH. Statements or suggestions concerning possible use of the products are made without representation or warranty that any such use is free of patent infringement and are not recommendations to infringe any patent. The user should not assume that toxicity data and safety measures are indicated or that other measures may not be required.