

Ultramid® 8202C HS

Polyamide 6

Product Description

Ultramid 8202C HS is a heat stabilized, low viscosity, PA6 injection molding homopolymer possessing a modified crystalline structure for increased property performance and faster cycles. It is also available in pigmented versions.

Applications

Ultramid 8202C HS is generally recommended for applications such as gears, valves, fittings, insulators, bushings, slides, window hardware, wiring devices, textile components and furniture casters.

PHYSICAL	ISO Test Method	Property Value
Density, g/cm ³	1183	1.13
Moisture, %	62	
(24 Hour)		1.6
(50% RH)		2.6
(Saturation)		9.3

MECHANICAL	ISO Test Method	Dry	Conditioned
Tensile Modulus, MPa	527		
-40C		4,090	-
23C		3,700	1,360
80C		750	-
120C		550	-
150C		445	-
Tensile stress at yield, MPa	527		
-40C		137	142
23C		88	43
80C		40	30
120C		30	25
150C		25	-
Tensile stress at break, MPa	527		
Tensile strain at yield, %	527		
23C		4	22
Nominal strain at break, %	527		
-40C		5.0	3.0
23C		7	>50
80C		>100	>100
120C		>100	>100
Flexural Strength, MPa	178		
23C		95	-
Flexural Modulus, MPa	178		
23C		2,800	-

IMPACT	ISO Test Method	Dry	Conditioned
Charpy Notched, kJ/m ²	179		

23C		3.5	-
Charpy Unnotched, kJ/m ²	179		
23C		N	-
THERMAL	ISO Test Method	Dry	Conditioned
Melting Point, C	3146	220	-
HDT A, C	75	65	-
HDT B, C	75	165	-
ELECTRICAL	ISO Test Method	Dry	Conditioned
Comparative Tracking Index	IEC 60112	600	-
Volume Resistivity (Ohm-m)	IEC 60093	>1E13	-
UL RATINGS	UL Test Method	Property Value	
Flammability Rating, .71mm	UL94	V-2	
Relative Temperature Index, .71mm	UL746B		
Mechanical w/o Impact, C		95	
Mechanical w/ Impact, C		95	
Electrical, C		130	
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	
Flammability Rating, 3.0mm	UL94	V-2	
Relative Temperature Index, 3.0mm	UL746B		
Mechanical w/o Impact, C		105	
Mechanical w/ Impact, C		105	
Electrical, C		130	
Flammability Rating, 6.0mm	UL94	V-2	
Relative Temperature Index, 6.0mm	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 80C (176F) is recommended. Drying time is dependent on moisture level, however 2-4 hours is generally sufficient. Further information concerning safe handling procedures can be obtained from the Safety Data Sheet. Alternatively, please contact your BASF representative.

Typical Profile

Melt Temperature 240-285C (464-545F)
 Mold Temperature 65-80C (149-176F)
 Injection and Packing Pressure 35-125 bar (500-1500 psi)

Mold Temperatures

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