

Ultramid® 8202C

Polyamide 6



Product Description

Ultramid 8202C is a modified crystalline and low viscosity, PA6 injection molding homopolymer. It is also available in heat stabilized (Ultramid 8202C HS) and/or pigmented versions. Its unique crystalline structure results in increased strength, stiffness, heat distortion temperature and performance under load as a homopolymer. It also cycles faster while maintaining properties and chemical resistance.

Applications

Ultramid 8202C is ideally suited for applications such as: furniture casters, gears, window hardware, and fittings, insulators, bushings, valves, relays, wiring devices, and other electrical components.

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		65	
Mechanical w/ Impact, C		65	
Electrical, C		125	
Flammability Rating, 1.5mm	UL94	V-2	
Relative Temperature Index, 1.5mm	UL746B		
Mechanical w/o Impact, C		85	
Mechanical w/ Impact, C		75	
Electrical, C		125	
Flammability Rating, 3.0mm	UL94	V-2	
Relative Temperature Index, 3.0mm	UL746B		
Mechanical w/o Impact, C		85	
Mechanical w/ Impact, C		75	
Electrical, C		125	
Flammability Rating, 6.0mm	UL94	V-2	
Relative Temperature Index, 6.0mm	UL746B		
Mechanical w/o Impact, C		85	
Mechanical w/ Impact, C		75	
Electrical, C		125	

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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