Product Information

Aug 2013

Ultramid® 8202CQ
Polyamide 6

BASF The Chemical Company

Product Description

Ultramid 8202CQ is a low viscosity, PA6 injection molding homopolymer, possessing a modified crystalline structure for increased property performance and faster cycles.

Applications

Ultramid 8202CQ is generally recommended for applications such as furniture casters, gears, window hardware, end fittings, insulators, bushings, slides, valves, relays, wiring devices, and other electrical components.

PHYSICAL	ISO Test Method	Property Value	
Density, g/cm	1183	1.13	
Moisture, %	62		
(24 Hour)		1.6	
(50% RH)		2.6	
(Saturation)		9.2	
MECHANICAL	**ISO Test Method**	**Dry**	**Conditioned**
Tensile Modulus, MPa	527		
-40C		3,730	-
23C		3,600	1,220
80C		675	-
121C		490	-
Tensile stress at yield, MPa	527		
-40C		137	142
23C		86	43
80C		40	-
121C		25	-
Tensile strain at yield, %	527		
23C		4	14
Nominal strain at break, %	527		
23C		10	>50
Flexural Strength, MPa	178		
23C		90	29
Flexural Modulus, MPa	178		
23C		2,800	1,010
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	60	-
ELECTRICAL	**ISO Test Method**	**Dry**	**Conditioned**

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Comparative Tracking Index	IEC 60112	450	-

UL RATINGS	UL Test Method	Property Value
Flammability Rating, 1.5mm	UL94	HB
Relative Temperature Index, 1.5mm	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 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 (149-176 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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