

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	ASTM Test Method	Property Value	
Specific Gravity	D-792	1.13	
Mold Shrinkage (1/8" bar, in/in)		0.009	
Moisture, %	D-570		
(24 Hour)		1.6	
(50% RH)		2.6	
(Saturation)		9.3	
MECHANICAL	ASTM Test Method	Dry	Conditioned
Tensile Strength, Yield, MPa (psi)	D-638		
-40C (-40F)		137 (19,900)	142 (20,600)
23C (73F)		90 (13,100)	48 (6,960)
80C (176F)		40 (5,800)	30 (4,350)
121C (250F)		30 (4,350)	25 (3,620)
Tensile Strength, Break, MPa (psi)	D-638		
-40C (-40F)		130 (18,900)	80 (11,600)
23C (73F)		90 (13,100)	70 (10,200)
80C (176F)		35 (5,070)	30 (4,350)
121C (250F)		25 (3,620)	20 (2,900)
Elongation, Yield, %	D-638		
-40C (-40F)		3	3
23C (73F)		4	22
80C (176F)		25	25
121C (250F)		27	30
Elongation, Break, %	D-638		
-40C (-40F)		5	3
23C (73F)		12	>100
80C (176F)		>100	>100
121C (250F)		>100	>100
Flexural Modulus, MPa (psi)	D-790		
-40C (-40F)		3,370 (489,000)	4,200 (609,000)
23C (73F)		3,170 (460,000)	970 (141,000)
65C (149F)		600 (87,000)	-



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90C (194F)		440 (63,800)	-
121C (250F)		385 (55,800)	-
Flexural Strength, MPa (psi)	D-790		
-40C (-40F)		183 (26,500)	168 (24,400)
23C (73F)		110 (16,000)	42 (6,090)
65C (149F)		30 (4,350)	-
121C (250F)		21 (3,040)	-
Rockwell Hardness, R Scale	D-785	120	-
IMPACT		ASTM Test Method	Dry Conditioned
Notched Izod Impact, J/M (ft-lbs/in)	D-256		
-40C (-40F)		32 (0.6)	21 (0.4)
23C (73F)		48 (0.9)	171 (3.2)
Drop Weight Impact, ft-lbs, 23C	BASF Drop Weight Impact Test	90	>200
THERMAL		ASTM Test Method	Dry Conditioned
Melting Point, C(F)	D-3418	220 (428)	-
Heat Deflection @ 264 psi (1.8 MPa) C(F)	D-648	75 (167)	-
Heat Deflection @ 66 psi (.45 MPa) C(F)	D-648	190 (374)	-
Coef. of Linear Thermal Expansion, mm/mm C (in/in F)	E-831	0.81 X10-4	-
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			85
Mechanical w/ Impact, C			75
Electrical, C			125
ELECTRICAL		ASTM Test Method	Dry Conditioned
Volume Resistivity, 1.5 mm	D-257	>1E13	-
Dielectric Strength, Short Time, 1.5 mm	D-149	30	-

