

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	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)	-
90C (194F)		440 (63,800)	-



Ultramid® 8202C HS



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		105	
Mechanical w/ Impact, C		105	
Electrical, C		130	
ELECTRICAL	ASTM Test Method	Dry	Conditioned
Volume Resistivity, 1.5 mm	D-257	>1E13	-
Dielectric Strength, Short Time, 1.5 mm	D-149	30	-

