

Ultramid® 8202 L

Polyamide 6

Product Description

Ultramid 8202 L is an unreinforced, low viscosity, non-lubricated PA6 injection molding homopolymer exhibiting excellent melt fluidity for filling thin sections. It is available in natural, heat stabilized and pigmented versions. It combines good strength, stiffness, and toughness as well as excellent heat, chemical and abrasion resistance.

Applications

Ultramid 8202 L is generally recommended for applications such as: gears, fittings, casters, bearings, clips, fasteners, plugs, caps, and filter bowls.

PHYSICAL	ASTM Test Method	Property Value	
Specific Gravity	D-792	1.13	
Mold Shrinkage (1/8" bar, in/in)		0.012	
Moisture, %	D-570		
(24 Hour)		1.6	
(50% RH)		2.7	
(Saturation)		9.5	
MECHANICAL	ASTM Test Method	Dry	Conditioned
Tensile Strength, Yield, MPa (psi)	D-638		
-40C (-40F)		125 (18,100)	110 (16,000)
23C (73F)		79 (11,500)	36 (5,220)
80C (176F)		35 (5,070)	30 (4,350)
121C (250F)		25 (3,620)	21 (3,040)
Tensile Strength, Break, MPa (psi)	D-638		
23C (73F)		75 (10,900)	60 (8,700)
Elongation, Yield, %	D-638		
23C (73F)		4	16
80C (176F)		42	35
121C (250F)		36	40
Elongation, Break, %	D-638		
23C (73F)		55	>100
Flexural Modulus, MPa (psi)	D-790		
-40C (-40F)		3,010 (436,000)	3,660 (531,000)
23C (73F)		2,830 (410,000)	740 (107,000)
65C (149F)		500 (72,500)	-
90C (194F)		350 (50,700)	-
121C (250F)		305 (44,200)	-
Flexural Strength, MPa (psi)	D-790		
-40C (-40F)		170 (24,600)	155 (22,500)
23C (73F)		110 (16,000)	35 (5,070)
65C (149F)		30 (4,350)	-
90C (194F)		20 (2,900)	-
121C (250F)		20 (2,900)	-



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Rockwell Hardness, R Scale	D-785	119	-
IMPACT	ASTM Test Method	Dry	Conditioned
Notched Izod Impact, J/M (ft-lbs/in)	D-256		
-40C (-40F)		50 (0.9)	45 (0.8)
23C (73F)		60 (1.1)	NB
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	65 (149)	-
Heat Deflection @ 66 psi (.45 MPa) C(F)	D-648	178 (352)	-
Coef. of Linear Thermal Expansion, mm/mm C (in/in F)	E-831	0.83 X10-4	-

