

Ultramid® 8202

Polyamide 6

Product Description

Ultramid 8202 is a low viscosity, general purpose PA6 injection molding homopolymer exhibiting excellent melt fluidity for filling thin sections. It is also available in heat stabilized (Ultramid 8202 HS) and/or pigmented versions. It combines good strength, stiffness and toughness as well as excellent heat, chemical and abrasion resistance.

Applications

Ultramid 8202 is generally recommended for applications such as gears, fittings, casters, beatings, 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)		126 (18,300)	110 (16,000)
23C (73F)		79 (11,500)	36 (5,220)
80C (176F)		35 (5,070)	30 (4,350)
121C (250F)		25 (3,620)	20 (2,900)
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)	154 (22,300)
23C (73F)		108 (15,700)	35 (5,070)
65C (149F)		30 (4,350)	-
90C (194F)		20 (2,900)	-
121C (250F)		17 (2,460)	-



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)		48 (0.9)	43 (0.8)
23C (73F)		58 (1.1)	NB
Drop Weight Impact, ft-lbs, 23C	BASF Drop Weight Impact Test	105	>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	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	-
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	22	-

