

Physical Properties Bulletin

Poly 15-Series Polyurethane Plastic Products

Product	15-3	15-3X	15-6	15-8	1511 & 1512	1512X
Mix Ratio (By Weight or Volume)	1A:1B	1A:1B	1A:1B	1A:1B	1A:1B	1A:1B
Part A Color	Opaque Tan ¹	Opaque Tan ¹	Clear Brown	Clear Brown	Clear Yellow	Clear Yellow
Part B Color	Opaque Tan ¹	Opaque Tan ¹	Opaque Tan ¹	Silver ¹	Translucent White ¹	Translucent White ¹
Mix Viscosity, cP	2,000	2,000	800	6,000	400	400
Pot Life, min	15	5	5	35	10 (1511) 22 (1512)	5
Maximum Exotherm, °F (°C)	125 (52)	160 (71)	203 (95)	131 (55)	251 (122)	251 (122)
Demold Time (hr)	12-16	1-12	1-3	1-16	1-16	½ - 4
Total Cure Time (days)	7	7	7	7	7	7
Linear Shrinkage	0.0006	0.0015	0.0027	0.0018	0.0044	0.0048
Specific Gravity	1.53	1.53	1.08	1.57	1.10	1.10
Shore D Hardness	80	80	72	80	71	71
Tensile Strength, psi (MPa)	3,509 (24.2)	3,890 (26.8)	5,340 (36.8)	5,192 (35.8)	6,712 (46.3) 7,882 (54.4)**	6,712 (46.3) 7,882 (54.4)**
Elastic Modulus, psi (MPa)	202,276 (1,395)	ND	ND	250,000 (1,724)	118,352 (816.2) 112,073 (773.9)**	118,352 (816.2) 112,073 (773.9)**
Flexural Strength, 5% Strain, psi (MPa)	5,232 (36.1)	ND	7,340 (50.6)	ND	10,046 (69.3) 11,190 (77.2)**	10,046 (69.3) 11,190 (77.2)**
Flexural Modulus, psi (MPa)	3,308 (22.8)	ND	199,000 (1,372)	ND	241,223 (1,663.4) 272,962 (1,882.5)**	241,223 (1,663.4) 272,962 (1,882.5)**
Heat Deflection Temperature, °F(°C)	ND	149 (65)	167 (75) 227 (108)**	140 (60) 185 (85)**	142 (61) 192 (89)**	142 (61) 192 (89)**
% Elongation	2.6	2.6	5.8	3.4	5.4 9.02**	5.4 9.02**

¹ Component requires stirring before use

* Shrinkage, reported as inch/inch, is primarily caused by gelling while hot then cooling. Parts that cure with minimal temperature rise exhibit minimal shrinkage.

** Post cured for 16 hours at 160°F (70°C)

Convention: psi/145 = MPa (megapascals)

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