

Technical Data Sheet

Type: Estane® 2102-80A is a thermoplastic polyurethane elastomer.

Feature: Low compression set.

Properties	Test Method	English		S.I.	
		Values [†]	Units	Values [†]	Units
Physical⁽¹⁾					
Shore Hardness	ASTM D 2240	84	A	84	A
Specific Gravity	ASTM D 792	1.18		1.18	
Taber Abrasion Resistance, 1000g, 1000 cycles; H-22 wheel (coarser)	ASTM D 1044	-	mg	10	mg
Mold Shrinkage, Transverse direction	ASTM D 955	-0.2-0.5	%	-0.2-0.5	%
Mold Shrinkage, Flow direction	ASTM D 955	0.4-0.6	%	0.4-0.6	%
Mechanical⁽²⁾					
Tensile Modulus -50% elongation -100% elongation -300% elongation	ASTM D 412	560 800 1900	psi psi psi	3.9 5.5 13.1	MPa MPa Mpa
Ultimate Elongation	ASTM D 412	575	%	575	%
Ultimate Tensile Strength	ASTM D 412	5800	psi	40	Mpa
Elongation Set After Break	ASTM D 412	50	%	50	%
Tear Strength, Die C	ASTM D 624	600	PLI	105	KN/m
Compression Set, Method B -22 hrs @ 25°C -22 hrs @ 70°C	ASTM D 395	28 28	% %	28 28	% %
Thermal					
Vicat Softening Point (120°C/hr, 9.8N)	ASTM D 1525	185	°F	85.0	°C
Glass Transition Temperature	DSC	-40	°F	-40	°C
CLTE, in-flow	ASTM D 696	87.7	in/in/°F	158	mm/mm/°C
Processing Conditions (Typical)					
Drying Temperature (air dew point <-40C)		180-200	°F	82-93	°C
Melt Temperature (Molding)		390-420	°F	199-216	°C
Mold Temperature		60-140	°F	16-60	°C

¹Typical properties; not to be construed as sales specifications. Fabrication conditions, part design, additives, processing aids, finishing materials and use conditions can all affect the integrity, performance and regulatory status of finished goods.

²Tests conducted on 0.126 inch (3.2mm) injection molded specimen, unannealed, unless noted.

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