

Technical Data Sheet
Type: Estane® 2102-90A 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	94	A	94	A
Specific Gravity	ASTM D 792	1.2		1.2	
Taber Abrasion Resistance, 1000g, 1000 cycles; H-22 wheel (coarser)	ASTM D 1044	-	mg	10	mg
Mold Shrinkage, Transverse direction	ASTM D 955	0.6-0.7	%	0.6-0.7	%
Mold Shrinkage, Flow direction	ASTM D 955	0.5-0.6	%	0.5-0.6	%
Mechanical⁽²⁾					
Tensile Modulus -50% elongation -100% elongation -300% elongation	ASTM D 412	1200 1600 4000	psi psi psi	8.4 11.0 27.6	MPa MPa Mpa
Ultimate Elongation	ASTM D 412	440	%	440	%
Ultimate Tensile Strength	ASTM D 412	6500	psi	44.8	Mpa
Elongation Set After Break	ASTM D 412	30	%	30	%
Tear Strength, Die C	ASTM D 624	830	PLI	145	KN/m
Compression Set, Method B -22 hrs @ 25°C -22 hrs @ 70°C	ASTM D 395	25 29	% %	25 29	% %
Flexural Modulus	ASTM D 790	12,000	psi	82.7	MPa
Thermal					
Vicat Softening Point (120°C/hr, 9.8N)	ASTM D 1525	243	°F	117	°C
Glass Transition Temperature	DSC	-15	°F	-26	°C
CLTE, in-flow	ASTM D 696	83.3	in/in/°F	150	mm/mm/°C
Processing Conditions (Typical)					
Drying Temperature (air dew point <-40C)		190-220	°F	88-104	°C
Melt Temperature (Molding)		400-430	°F	204-221	°C
Mold Temperature		60-140	°F	16-60	°C

[†]Typical 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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