

Technical Data Sheet
Type: Estane® 2102-55D is a thermoplastic polyurethane elastomer

Feature: Load-bearing capacity

Properties	Test Method	English		S.I.	
		Values [†]	Units	Values [†]	Units
Physical⁽¹⁾					
Hardnes, Shore D	ASTM D 2240	58	D	58	D
Specific Gravity	ASTM D 792	1.21		1.21	
Taber Abrasion Resistance, 1000g, 1000 cycles; H-22 wheel (coarser)	ASTM D 1044	-	mg	60	mg
Mold Shrinkage, Transverse direction	ASTM D 955	0.6-0.9	%	0.6-0.9	%
Mold Shrinkage, Flow direction	ASTM D 955	0.5-0.7	%	0.5-0.7	%
Mechanical⁽²⁾					
Tensile Modulus -50% elongation -100% elongation -300% elongation	ASTM D 412	2220 2350 5200	psi psi psi	15.3 16.2 35.8	MPa MPa Mpa
Ultimate Elongation	ASTM D 412	415	%	415	%
Ultimate Tensile Strength	ASTM D 412	7180	psi	49.5	Mpa
Elongation Set After Break	ASTM D 412	30	%	30	%
Tear Strength, Die C	ASTM D 624	1020	PLI	179	KN/m
Compression Set, Method B -22 hrs @ 25°C -22 hrs @ 70°C	ASTM D 395	25 27	% %	25 27	% %
Flexural Modulus	ASTM D 790	25,000	psi	172	Mpa
Thermal					
Vicat Softening Point (120°C/hr, 9.8N)	ASTM D 1525	245	°F	118	°C
CLTE, in-flow	ASTM D 696	75.0	in/in/°F	135	mm/mm/°C
Processing Conditions (Typical)					
Drying Temperature (air dew point <-40C)		199-220	°F	88-104	°C
Melt Temperature (Molding)		400-430	°F	204-221	°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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