

**Technical Data Sheet**

**Type:** Estane® 2103-90A is a thermoplastic polyurethane elastomer.

**Feature:** Low compression set.

Properties	Test Method	English		S.I.	
		Values <sup>†</sup>	Units	Values <sup>†</sup>	Units
<b>Physical<sup>(1)</sup></b>					
Specific Gravity	ASTM D 792	1.14		1.14	
Mold Shrinkage (1/16" [1.6mm] thick plaques)					
MD		0.7-0.8	%	0.7-0.8	%
TD		0.7-0.8	%	0.7-0.8	%
<b>Mechanical</b>					
Durometer Hardness, Shore A (+/-4)	ASTM D 2240	92	A	92	A
Tensile Modulus					
-50% elongation	ASTM D 412	1100	psi	7.6	MPa
-100% elongation		1630	psi	11.2	MPa
-300% elongation		3600	psi	24.8	MPa
Ultimate Tensile Strength	ASTM D 412	6500	psi	44.8	MPa
Ultimate Elongation	ASTM D 412	450	%	450	%
Elongation Set After Break	ASTM D 412	30	%	30	%
Tear Strength, Die C	ASTM D 624	760	PLI	133	KN/m
Compression Set					
-22 hrs @ 25°C	ASTM D 395 Method B	25	%	25	%
-22 hrs @ 70°C		28	%	28	%
Taber Abrasion Resistance, 1000g, 1,000 cycles; CS-17 wheel (finer)	ASTM D 1044			10	mg
Flexural Modulus	ASTM D 790	11,000	psi	75.8	MPa
<b>Thermal</b>					
Vicat Softening Point (120°C/hr, 9.8N)	ASTM D 1525	224	°F	107	°C
Coefficient of Linear Thermal Expansion	ASTM D 696	84.3	10 <sup>-6</sup> mm/mm/°F	152	10 <sup>-6</sup> mm/mm/°C
Glass Transition Temperature	DSC	-13	°F	-25	°C
<b>Rheological Information</b>					
Melt Index, 190°C, 8700g	ASTM D1238	-	-	23	g/10 min
<b>Processing Information</b>					
Recommended Drying Temperature		190-220	°F	88-104	°C
Melt Temperature (Molding)		400-430	°F	204-221	°C
Melt Temperature (Extrusion)		-	°F	-	°C
Mold Temperature		60-140	°F	16-60	°C

<sup>†</sup>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.

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