Technical Data Sheet

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

Feature : Film resin for injection blow molding.

Properties	Test Method	English		S.I.	
		Values[t]	Units	Values[t]	Units
Physical[(1)]					
Shore Hardness	ASTM D 2240	92	A	92	A
Specific Gravity	ASTM D 792	1.14		1.14	
Melt Flow Rate, 224°C/8700g	ASTM D 1238	-	g/10min	6	g/10min
Taber Abrasion, Wt Loss, 1000g wt 1-1000g, H-22 (coarser)	ASTM D 1044	-	mg	50	mg
Mold Shrinkage, Transverse direction	ATSM D 955	0.4-0.5	%	0.4-0.5	%
Mold Shrinkage, Flow direction	ATSM D 955	0.5-0.8	%	0.5-0.8	%
Mechanical[(2)]					
Tensile Modulus -50% elongation -100% elongation -300% elongation	ASTM D 412	 1000 1410 2950	 psi psi psi	 6.9 9.7 20.3	 MPa Mpa Mpa
Ultimate Elongation	ASTM D 412	480	%	480	%
Ultimate Tensile Strength	ASTM D 412	5650	psi	38.9	Mpa
Elongation Set After Break	ASTM D 412	60	%	60	%
Tear Strength, Die C	ASTM D 624	540	PLI	94.6	KN/m
Compression Set, Method B -22 hrs @ 25°C -22 hrs @ 70°C	ASTM D 395	 25 40	 % %	 25 40	 % %
Flexural Modulus	ASTM D 790	10,000	psi	65.9	MPa
Thermal					
Vicat Softening Point (120°C/hr, 9.8N)	ASTM D 1525	215	°F	102	°C
Glass Transition Temperature	DSC	-17	°F	-27	°C
CLTE, in-flow	ASTM D 696	86.9	in/in/°F	156	mm/mm/°C
Processing Conditions (Typical)					
Drying Temperature (air dew point <-40C)		190-220	°F	88-104	°C
Melt Temperature (Molding)		380-410	°F	193-210	°C
Melt Temperature (Extrusion)		370-400	°F	188-204	°C
Mold Temperature		60-140	°F	16-60	°C

[1]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.

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