

Technical Data Sheet
Type: Estane® 2103-85AE is a thermoplastic polyurethane elastomer.

Feature: Film and resin profile.

Properties	Test Method	English		S.I.	
		Values [†]	Units	Values [†]	Units
Physical⁽¹⁾					
Shore Hardness	ASTM D 2240	88 48	A D	88 48	A D
Specific Gravity	ASTM D 792	1.14		1.14	
Melt Flow Rate, 224°C/8700g	ASTM D 1238	-	g/10min	24	g/10min
Taber Abrasion, Wt Loss, 1000g wt 1-1000g, H-22 (coarser)	ASTM D 1044	-	mg	5	mg
Mold Shrinkage, Transverse direction	ASTM D 955	0-0.6	%	0-0.6	%
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	800 1000 1750	psi psi psi	5.5 6.9 12.1	MPa MPa Mpa
Ultimate Elongation	ASTM D 412	560	%	560	%
Ultimate Tensile Strength	ASTM D 412	4650	psi	32	Mpa
Elongation Set After Break	ASTM D 412	80	%	80	%
Tear Strength, Die C	ASTM D 624	470	PLI	82.3	KN/m
Compression Set, Method B -22 hrs @ 25°C -22 hrs @ 70°C	ASTM D 395	25 80	% %	25 80	% %
Thermal					
Vicat Softening Point (120°C/hr, 9.8N)	ASTM D 1525	153	°F	67.2	°C
Glass Transition Temperature	DSC	-36	°F	-38	°C
CLTE, in-flow	ASTM D 696	93.9	in/in/°F	169	mm/mm/°C
Processing Conditions (Typical)					
Drying Temperature (air dew point <-40C)		180-200	°F	82-93	°C
Melt Temperature (Molding)		370-400	°F	188-204	°C
Melt Temperature (Extrusion)		360-390	°F	182-199	°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.

The information contained herein is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications or the results to be obtained. The information often is based on laboratory work with small-scale equipment and does not necessarily indicate end product performance or reproducibility. Formulations presented may not have been tested for stability and should be used only as a suggested starting point. Because of the variations in methods, conditions and equipment used commercially in processing these materials, no warranties or guarantees are made as to the suitability of the products for the applications disclosed. Full-scale testing and end product performance are the responsibility of the user. Lubrizol Advanced Materials, Inc. shall not be liable for and the customer assumes all risk and liability for any use or handling of any material beyond Lubrizol Advanced Materials, Inc.'s direct control. The SELLER MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Nothing contained herein is to be considered as permission, recommendation nor as an inducement to practice any patented invention without permission of the patent owner.

© 2018 The Lubrizol Corporation.
All rights reserved. All marks are the property of The Lubrizol Corporation.


<http://go.lubrizol.com/EP>