

Technical Data Sheet
Type: Estane® 2103-65D is a thermoplastic polyurethane elastomer.

Feature: Load bearing capacity.

Properties	Test Method	English		S.I.	
		Values [†]	Units	Values [†]	Units
Physical⁽¹⁾					
Shore Hardness	ASTM D 2240	64	D	64	D
Specific Gravity	ASTM D 792	1.17		1.17	
Melt Flow Rate, 190°C/8.7kg	ASTM D 1238	-	g/10min	35	g/10min
Taber Abrasion Resistance, 1000g, 1000 cycles; H-22 wheel (coarser)	ASTM D 1044	-	mg	90	mg
Mold Shrinkage, Transverse direction	ASTM D 955	0.5-0.9	%	0.5-0.9	%
Mold Shrinkage, Flow direction	ASTM D 955	0.6-1.0	%	0.6-1.0	%
Mechanical⁽²⁾					
Tensile Modulus	ASTM D 412	2500	psi	17.2	MPa
-50% elongation		2800	psi	19.3	MPa
-100% elongation		4800	psi	33.1	Mpa
-300% elongation					
Ultimate Elongation	ASTM D 412	360	%	360	%
Ultimate Tensile Strength	ASTM D 412	5750	psi	39.6	Mpa
Elongation Set After Break	ASTM D 412	80	%	80	%
Tear Strength, Die C	ASTM D 624	1100	PLI	193	KN/m
Compression Set, Method B	ASTM D 395	30	%	30	%
-22 hrs @ 25°C		35	%	35	%
-22 hrs @ 70°C					
Flexural Modulus	ASTM D 790	33,500	psi	231	MPa
Thermal					
Vicat Softening Point (120°C/hr, 9.8N)	ASTM D 1525	242	°F	117	°C
CLTE, in-flow	ASTM D 696	72.7	in/in/°F	131	mm/mm/°C
Processing Conditions (Typical)					
Drying Temperature (air dew point <-40C)		210-230	°F	99-110	°C
Melt Temperature (Molding)		410-440	°F	210-221	°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.

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.

