

## Lubrizol Estane® 2103-80AE Thermoplastic Polyurethane Elastomer

Category : Polymer , Thermoplastic , Elastomer, TPE , Polyurethane, TP , Thermoplastic Polyurethane, Elastomer, Ether Grade

### Material Notes:

Formerly Pellethane Available in Americas, Europe, Middle East, Africa, India and Asia Data provided by Lubrizol Lubrizol acquired the Pellethane product line from Dow in 2009.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Lubrizol-Estane-2103-80AE-Thermoplastic-Polyurethane-Elastomer.php](http://www.lookpolymers.com/polymer_Lubrizol-Estane-2103-80AE-Thermoplastic-Polyurethane-Elastomer.php)

Physical Properties	Metric	English	Comments
Density	1.13 g/cc	0.0408 lb/in <sup>3</sup>	ASTM D792
Linear Mold Shrinkage, Flow	0.0060 - 0.0080 cm/cm	0.0060 - 0.0080 in/in	ASTM D955
Linear Mold Shrinkage, Transverse	-0.00200 - 0.0050 cm/cm	-0.00200 - 0.0050 in/in	ASTM D955
Melt Flow	40 g/10 min @Load 1.20 kg, Temperature 224 °C	40 g/10 min @Load 2.65 lb, Temperature 435 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	82	82	ASTM D2240
Tensile Strength, Ultimate	34.5 MPa	5000 psi	ASTM D412
Elongation at Break	600 %	600 %	ASTM D412
50% Modulus	0.00414 GPa	0.600 ksi	ASTM D412
100% Modulus	0.00550 GPa	0.798 ksi	ASTM D412
300% Modulus	0.0117 GPa	1.70 ksi	ASTM D412
Tear Strength	105 kN/m	599 pli	Die C; ASTM D624
Taber Abrasion, mg/1000 Cycles	20	20	H22 Wheel, 1000g; ASTM D1044
Compression Set	30 % @Temperature 25.0 °C, Time 79200 sec	30 % @Temperature 77.0 °F, Time 22.0 hour	ASTM D395, Method B
	33 % @Temperature 70.0 °C, Time 79200 sec	33 % @Temperature 158 °F, Time 22.0 hour	ASTM D395, Method B
Tensile Set	70 %	70 %	Elongation set after break; ASTM D412

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	168 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	93.3 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ASTM D969
	@Temperature 20.0 $^{\circ}\text{C}$	@Temperature 68.0 $^{\circ}\text{F}$	
Vicat Softening Point	85.0 $^{\circ}\text{C}$	185 $^{\circ}\text{F}$	120 $^{\circ}\text{C}/\text{hr}$ , 9.8N; ASTM D1525
Glass Transition Temp, Tg	-40.0 $^{\circ}\text{C}$	-40.0 $^{\circ}\text{F}$	

Processing Properties	Metric	English	Comments
Melt Temperature	182 - 199 $^{\circ}\text{C}$	360 - 390 $^{\circ}\text{F}$	Extrusion
	182 - 210 $^{\circ}\text{C}$	360 - 410 $^{\circ}\text{F}$	Molding
Mold Temperature	16.0 - 60.0 $^{\circ}\text{C}$	60.8 - 140 $^{\circ}\text{F}$	
Drying Temperature	82.0 - 93.0 $^{\circ}\text{C}$	180 - 199 $^{\circ}\text{F}$	air dew point <-40 $^{\circ}\text{C}$

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China