

Lubrizol Estane® 2103-85AE Thermoplastic Polyurethane Elastomer

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

Material Notes:

Formerly Pellethane
Feature: Film and profile resin
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-2103-85AE-Thermoplastic-Polyurethane-Elastomer.php

Physical Properties	Metric	English	Comments
Density	1.14 g/cc	0.0412 lb/in ³	ASTM D792
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	ASTM D955
Linear Mold Shrinkage, Transverse	0.00 - 0.0060 cm/cm	0.00 - 0.0060 in/in	ASTM D955
Melt Flow	24 g/10 min @Load 8.70 kg, Temperature 224 °C	24 g/10 min @Load 19.2 lb, Temperature 435 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	88	88	ASTM D2240
Hardness, Shore D	48	48	ASTM D2240
Tensile Strength, Ultimate	32.0 MPa	4640 psi	ASTM D412
Elongation at Break	560 %	560 %	ASTM D412
50% Modulus	0.00550 GPa	0.798 ksi	ASTM D412
100% Modulus	0.00690 GPa	1.00 ksi	ASTM D412
300% Modulus	0.0121 GPa	1.75 ksi	ASTM D412
Tear Strength	82.3 kN/m	470 pli	Die C; ASTM D624
Taber Abrasion, mg/1000 Cycles	5.0	5.0	H22 Wheel, 1000g; ASTM D1044
Compression Set	25 % @Temperature 25.0 °C, Time 79200 sec	25 % @Temperature 77.0 °F, Time 22.0 hour	ASTM D395, Method B
	80 % @Temperature 70.0 °C, Time 79200 sec	80 % @Temperature 158 °F, Time 22.0 hour	ASTM D395, Method B
Tensile Set	80 %	80 %	Elongation set after break; ASTM D412

Mechanical Properties	Metric	English	Comments
Thermal Properties	Metric	English	Comments
CTE, linear	169 $\mu\text{m/m}\cdot^\circ\text{C}$	93.9 $\mu\text{in/in}\cdot^\circ\text{F}$	ASTM D696
	@Temperature 20.0 $^\circ\text{C}$	@Temperature 68.0 $^\circ\text{F}$	
Vicat Softening Point	67.2 $^\circ\text{C}$	153 $^\circ\text{F}$	120 $^\circ\text{C/hr}$, 9.8N; ASTM D1525
Glass Transition Temp, Tg	-38.0 $^\circ\text{C}$	-36.4 $^\circ\text{F}$	

Processing Properties	Metric	English	Comments
Melt Temperature	182 - 199 $^\circ\text{C}$	360 - 390 $^\circ\text{F}$	Extrusion
	188 - 204 $^\circ\text{C}$	370 - 399 $^\circ\text{F}$	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

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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