

## Lubrizol Estane® 2102-65D Thermoplastic Polyurethane Elastomer

Category : Polymer , Thermoplastic , Elastomer, TPE , Polyurethane, TP , Thermoplastic Polyurethane, Elastomer, Polyester 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-2102-65D-Thermoplastic-Polyurethane-Elastomer.php](http://www.lookpolymers.com/polymer_Lubrizol-Estane-2102-65D-Thermoplastic-Polyurethane-Elastomer.php)

Physical Properties	Metric	English	Comments
Density	1.22 g/cc	0.0441 lb/in <sup>3</sup>	ASTM D792
Linear Mold Shrinkage, Flow	0.0070 - 0.0080 cm/cm	0.0070 - 0.0080 in/in	ASTM D955
Linear Mold Shrinkage, Transverse	0.0070 cm/cm	0.0070 in/in	ASTM D955
Melt Flow	49 g/10 min @Load 1.20 kg, Temperature 224 °C	49 g/10 min @Load 2.65 lb, Temperature 435 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	65	65	ASTM D2240
Tensile Strength, Ultimate	44.1 MPa	6400 psi	ASTM D412
Elongation at Break	390 %	390 %	ASTM D412
50% Modulus	0.0165 GPa	2.39 ksi	ASTM D412
100% Modulus	0.0200 GPa	2.90 ksi	ASTM D412
300% Modulus	0.0310 GPa	4.50 ksi	ASTM D412
Flexural Modulus	0.255 GPa	37.0 ksi	ASTM D790
Tear Strength	263 kN/m	1500 pli	Die C; ASTM D624
Taber Abrasion, mg/1000 Cycles	120	120	H22 Wheel, 1000 g; 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
	40 % @Temperature 70.0 °C, Time 79200 sec	40 % @Temperature 158 °F, Time 22.0 hour	ASTM D395, Method B
Tensile Set	110 %	110 %	Elongation set after break; ASTM D412

Mechanical Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	120 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ @Temperature 20.0 $^\circ\text{C}$	66.7 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$ @Temperature 68.0 $^\circ\text{F}$	ASTM D696
Vicat Softening Point	142 $^\circ\text{C}$	288 $^\circ\text{F}$	120 $^\circ\text{C}/\text{hr}$ , 9.8N; ASTM D1525

Processing Properties	Metric	English	Comments
Melt Temperature	210 - 221 $^\circ\text{C}$	410 - 430 $^\circ\text{F}$	Molding
Mold Temperature	16.0 - 60.0 $^\circ\text{C}$	60.8 - 140 $^\circ\text{F}$	
Drying Temperature	99.0 - 110 $^\circ\text{C}$	210 - 230 $^\circ\text{F}$	air dew point $\leq -40^\circ\text{C}$

## Contact Songhan Plastic Technology Co.,Ltd.

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