

## Lubrizol Estane® 2102-75A Thermoplastic Polyurethane Elastomer

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

### Material Notes:

Formerly Pellethane  
 Feature: Memory, elasticity and impact modification  
 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-2102-75A-Thermoplastic-Polyurethane-Elastomer.php](http://www.lookpolymers.com/polymer_Lubrizol-Estane-2102-75A-Thermoplastic-Polyurethane-Elastomer.php)

Physical Properties	Metric	English	Comments
Density	1.17 g/cc	0.0423 lb/in <sup>3</sup>	ASTM D792
Linear Mold Shrinkage, Flow	0.0040 - 0.0060 cm/cm	0.0040 - 0.0060 in/in	ASTM D955
Linear Mold Shrinkage, Transverse	-0.00200 - 0.0050 cm/cm	-0.00200 - 0.0050 in/in	ASTM D955
Melt Flow	20 g/10 min @Load 1.20 kg, Temperature 224 °C	20 g/10 min @Load 2.65 lb, Temperature 435 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	77	77	ASTM D2240
Tensile Strength, Ultimate	37.2 MPa	5400 psi	ASTM D412
Elongation at Break	535 %	535 %	ASTM D412
50% Modulus	0.00300 GPa	0.435 ksi	ASTM D412
100% Modulus	0.00470 GPa	0.682 ksi	ASTM D412
300% Modulus	0.00970 GPa	1.41 ksi	ASTM D412
Tear Strength	87.6 kN/m	500 pli	Die C; ASTM D624
Taber Abrasion, mg/1000 Cycles	20	20	H22 Wheel, 1000 g; 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
	28 % @Temperature 70.0 °C, Time 79200 sec	28 % @Temperature 158 °F, Time 22.0 hour	ASTM D395, Method B
Tensile Set	30 %	30 %	Elongation set after break; ASTM D412

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	171 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	95.0 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ASTM D696
	@Temperature 20.0 $^{\circ}\text{C}$	@Temperature 68.0 $^{\circ}\text{F}$	
Vicat Softening Point	81.6 $^{\circ}\text{C}$	179 $^{\circ}\text{F}$	120 $^{\circ}\text{C}/\text{hr}$ , 9.8N; ASTM D1525
Glass Transition Temp, Tg	-39.0 $^{\circ}\text{C}$	-38.2 $^{\circ}\text{F}$	

Processing Properties	Metric	English	Comments
Melt Temperature	188 - 204 $^{\circ}\text{C}$	370 - 399 $^{\circ}\text{F}$	Extrusion
	199 - 216 $^{\circ}\text{C}$	390 - 421 $^{\circ}\text{F}$	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.

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