

Lubrizol Estane® 58144 Thermoplastic Polyurethane

Category : Polymer , Thermoplastic , Polyurethane, TP , Thermoplastic Polyurethane (TPUR), Polyether Grade

Material Notes:

Type: Estane® 58144 is a 65D Polyether-type thermoplastic polyurethane (TPU) compound.Features: FDA (contact Lubrizol for details).

Pre-drying: 2 hours at 104C (220F) in Dehumidifying Hopper Dryer.Uses: Injection MoldingAvailable in Americas, Europe, Middle East,

Africa, India and AsiaInformation Provided by The Lubrizol Corporation

Order this product through the following link:

http://www.lookpolymers.com/polymer_Lubrizol-Estane-58144-Thermoplastic-Polyurethane.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.18 g/cc	1.18 g/cc	ASTM D792
Linear Mold Shrinkage	0.0050 cm/cm	0.0050 in/in	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	62 - 68	62 - 68	ASTM D2240
Tensile Strength, Ultimate	45.9 MPa	6660 psi	ASTM D412; ASTM D638
Tensile Strength, Yield	24.1 MPa	3500 psi	100% elongation; ASTM D412; ASTM D638
	38.7 MPa	5610 psi	300% elongation; ASTM D412; ASTM D638
Elongation at Break	340 %	340 %	ASTM D412; ASTM D638
Flexural Modulus	0.3097 GPa @Temperature 23.0 °C	44.92 ksi @Temperature 73.4 °F	ASTM D790
Flexural Stiffness	217.4 MPa @Temperature 23.0 °C	31530 psi @Temperature 73.4 °F	ASTM D747
Tear Strength	35.9 kN/m	205 pli	Split; ASTM D470
	170.9 kN/m	975.2 pli	Die C; ASTM D624
Compression Set	66 % @Temperature 23.0 °C, Time 79200 sec	66 % @Temperature 73.4 °F, Time 22.0 hour	ASTM D395
	93 % @Temperature 70.0 °C, Time 79200 sec	93 % @Temperature 158 °F, Time 22.0 hour	ASTM D395
Tensile Set	53 %	53 %	200% elongation; ASTM D412

Thermal Properties	Metric	English	Comments
Vicat Softening Point	102 °C	216 °F	ASTM D1525
Glass Transition Temp, Tg	-40.0 °C	-40.0 °F	DSC

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	199 °C	390 °F	
Middle Barrel Temperature	240 °C	464 °F	
Front Barrel Temperature	215 °C	419 °F	
Nozzle Temperature	218 °C	424 °F	
Melt Temperature	204 °C	399 °F	
Mold Temperature	10.0 - 22.0 °C	50.0 - 71.6 °F	
Drying Temperature	104 °C @Time 7200 sec	219 °F @Time 2.00 hour	
Injection Pressure	68.9 - 138 MPa	10000 - 20000 psi	
Back Pressure	0.345 MPa	50.0 psi	
Screw Speed	20 - 50 rpm	20 - 50 rpm	

Contact Songhan Plastic Technology Co.,Ltd.

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