

## Lubrizol ESTANE® GP52DB Ester Based Thermoplastic Polyurethane

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

### Material Notes:

Type: Estane® GP 52DB is an aromatic polyester-based thermoplastic polyurethane (TPU). Appearance: Translucent spherical pellets  
Uses: Injection molding parts  
Available in Europe  
Information provided by Lubrizol.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Lubrizol-ESTANE-GP52DB-Ester-Based-Thermoplastic-Polyurethane.php](http://www.lookpolymers.com/polymer_Lubrizol-ESTANE-GP52DB-Ester-Based-Thermoplastic-Polyurethane.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.23 g/cc	1.23 g/cc	ISO 2781
Maximum Moisture Content	0.050	0.050	
Melt Flow	15 - 35 g/10 min @Load 8.70 kg, Temperature 210 °C	15 - 35 g/10 min @Load 19.2 lb, Temperature 410 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	52	52	ISO 868
Tensile Strength, Ultimate	56.0 MPa	8120 psi	ISO 37
Elongation at Break	525 %	525 %	ISO 37
Modulus of Elasticity	0.870 GPa	126 ksi	tensile test; ISO 527
50% Modulus	0.0130 GPa	1.89 ksi	ISO 37
100% Modulus	0.0150 GPa	2.18 ksi	ISO 37
300% Modulus	0.0300 GPa	4.35 ksi	ISO 37
Rebound	30 %	30 %	ISO 4662
	30 %	30 %	ISO 4662
Tear Strength	132 kN/m	753 pli	with incision; ISO 34B
	164 kN/m	936 pli	without incision; ISO 34B
Abrasion	38	38	[mm <sup>3</sup> ]; ISO 4649
Compression Set	20 %	20 %	70 hrs./22°C; ISO 815
	36 %	36 %	24 hrs./70°C; ISO 815

Thermal Properties	Metric	English	Comments
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Thermal Properties	Metric	English	Comments
<b>Processing Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Feed Temperature	40.0 °C	104 °F	Injection
Nozzle Temperature	205 - 215 °C	401 - 419 °F	Injection
Zone 1	195 - 205 °C	383 - 401 °F	Injection
Zone 2	205 - 215 °C	401 - 419 °F	Injection
Zone 3	210 - 220 °C	410 - 428 °F	Injection
Zone 4	210 - 220 °C	410 - 428 °F	Injection
Drying Temperature	100 °C	212 °F	
Dry Time	2.00 - 3.00 hour	2.00 - 3.00 hour	
Dew Point	-30.0 °C	-22.0 °F	

## Contact Songhan Plastic Technology Co.,Ltd.

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