

## Covestro Desmopan® 460 Thermoplastic Polyurethane

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

### Material Notes:

Desmopan 460 is a TPU on the basis of a special ester. Applications: Bearing shells, gear wheels, seals, cable connectors. Information provided by Bayer. As of 1 September 2015, Bayer Material Science was separated from Bayer AG and officially adopted its new name – Covestro.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Covestro-Desmopan-460-Thermoplastic-Polyurethane.php](http://www.lookpolymers.com/polymer_Covestro-Desmopan-460-Thermoplastic-Polyurethane.php)

Physical Properties	Metric	English	Comments
Density	1.22 g/cc	0.0441 lb/in <sup>3</sup>	
Water Absorption	0.96 %	0.96 %	Saturation in water
Moisture Absorption at Equilibrium	0.20 %	0.20 %	Equilibrium at 50% RH
Water Absorption at Saturation	0.96 %	0.96 %	

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	97	97	DIN 53505
Hardness, Shore D	58	58	DIN 53505
Elongation at Break	>= 50 %	>= 50 %	Nominal
Tensile Creep Modulus, 1 hour	178 MPa	25800 psi	
Tensile Creep Modulus, 1000 hours	105 MPa	15200 psi	
Compression Set	25 %	25 %	70 hr; 22°C
	35 %	35 %	24 hr
	@Temperature 70.0 °C	@Temperature 158 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	124 µm/m-°C	68.9 µin/in-°F	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Deflection Temperature at 0.46 MPa (66 psi)	61.0 °C	142 °F	
Deflection Temperature at 1.8 MPa (264 psi)	39.0 °C	102 °F	
Vicat Softening Point	52.0 °C	126 °F	

Thermal Properties	Metric	English	Comments
	@Thickness 1.60 mm	@Thickness 0.0630 in	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	2.00e+13 ohm-cm	2.00e+13 ohm-cm	
Surface Resistance	5.00e+12 ohm	5.00e+12 ohm	
Dielectric Constant	4.5	4.5	
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Dielectric Strength	5.4	5.4	
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	22.4 kV/mm	569 kV/in	
Dissipation Factor	0.021	0.021	
	@Frequency 100 Hz	@Frequency 100 Hz	
Comparative Tracking Index	0.055	0.055	
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Comparative Tracking Index	600 V	600 V	

## Contact Songhan Plastic Technology Co.,Ltd.

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