

## TSE Industries Millathane® HT High Temperature-Resistant Millable Polyester Polyurethane with 0.5 PHR Sulfur

Category : Polymer , Thermoset , Polyester, TS , Polyurethane, TS , Thermoset Polyurethane, Elastomer, Unreinforced , Rubber or Thermoset Elastomer (TSE)

### Material Notes:

MILLATHANE HT is a polyester millable polyurethane which has the ability to withstand elevated temperatures. Polyurethanes have been known for their excellent resistance to abrasion, impact, tear strength, oil and fuel resistance, and ozone resistance. The life expectancy of urethane is often 5 times longer than other elastomers, thus saving material costs and downtime expense. One shortcoming of polyurethanes is loss of physical properties at temperatures over 180°F (82°C). MILLATHANE HT has overcome this weakness. The sulfur-curing system consistently gives a desirable combination of optimum property values and processing safety. Selection of this system over peroxide, however, should be preceded by investigation into the possible effects of temperature. Sulfur-cured systems will give you better physical properties, but will not withstand a higher temperature of 300°F (149°C) as well as peroxidecured systems. A MILLATHANE HT masterbatch containing 40 phr N330 black was used in this evaluation. All information provided by TSE Industries

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_TSE-Industries-Millathane-HT-High-Temperature-Resistant-Millable-Polyester-Polyurethane-with-05-PHR-Sulfur.php](http://www.lookpolymers.com/polymer_TSE-Industries-Millathane-HT-High-Temperature-Resistant-Millable-Polyester-Polyurethane-with-05-PHR-Sulfur.php)

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	80	80	
Tensile Strength, Yield	15.06 MPa	2184 psi	
Elongation at Yield	612 %	612 %	
100% Modulus	0.00328 GPa	0.475 ksi	
200% Modulus	0.00618 GPa	0.896 ksi	
300% Modulus	0.009080 GPa	1.317 ksi	
Tear Strength	51.0 kN/m	291 pli	Die C
Compression Set	55 % @Temperature 70.0 °C, Time 79200 sec	55 % @Temperature 158 °F, Time 22.0 hour	

Processing Properties	Metric	English	Comments
Cure Time	16.0 min @Temperature 160 °C	0.267 hour @Temperature 320 °F	Press cured

Descriptive Properties	Value	Comments
DIN Abrasion (mm³)	142	

## Contact Songhan Plastic Technology Co.,Ltd.

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