

## ExxonMobil Santoprene® 8281-45MED Thermoplastic Elastomer

Category : Polymer , Thermoplastic , Elastomer, TPE , Thermoplastic Vulcanizate Elastomer (TPV)

### Material Notes:

A soft, colorable, specialty, non-hygroscopic thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. USP Class VI Certificates of Compliance exist for representative samples of our medical grades. Prior to release, each medical grade lot undergoes a Cytotoxicity study using the ISO elution method and a Physico-Chemical - Elastomeric Closures test for heavy metals such as lead. This grade of Santoprene 8000 TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding or extrusion. It is polyolefin based and completely recyclable. Key Features: Based on a series of biocompatibility tests conducted on representative grades, this grade should meet the USP (U.S. Pharmacopeia) Class VI requirements for plastics. Additionally some ISO 10993 tests have been conducted. Each medical grade undergoes annual testing for cytotoxicity and heavy metals. Drug master file maintained with the FDA. EU and China RoHS compliant. Applications: Medical – Soft Touch Grips, USP Class VI Seals and Gaskets. Uses: Medical/Healthcare Applications. Processing Method: Injection Molding and Multi Injection Molding. Availability: Africa & Middle East, Europe, North America, Asia Pacific, Latin America and South America. Information provided by ExxonMobil Chemical

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_ExxonMobil-Santoprene-8281-45MED-Thermoplastic-Elastomer.php](http://www.lookpolymers.com/polymer_ExxonMobil-Santoprene-8281-45MED-Thermoplastic-Elastomer.php)

Physical Properties	Metric	English	Comments
Specific Gravity	0.910 g/cc	0.910 g/cc	23°C; ASTM D792
Maximum Moisture Content	0.080	0.080	

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	49	49	2 mm, 15 sec; ISO 868
Tensile Strength at Break	3.60 MPa	522 psi	Across Flow; ASTM D412
Tensile Stress	1.30 MPa @Strain 100 %	189 psi @Strain 100 %	Across Flow; ASTM D412
Elongation at Break	380 %	380 %	Across Flow; ASTM D412
Tear Strength	4.00 kN/m	22.8 pli	212°F, Die C; ASTM D624
	12.0 kN/m	68.5 pli	73°C, Die C; ASTM D624
Compression Set	12 %	12 %	73°F, 168 hr; ASTM D395

Processing Properties	Metric	English	Comments
Processing Temperature	175 - 230 °C	347 - 446 °F	
Rear Barrel Temperature	177 - 191 °C	351 - 376 °F	
Middle Barrel Temperature	179 - 193 °C	354 - 379 °F	

Processing Properties	Metric	English	Comments
Nozzle Temperature	185 - 210 °C	365 - 410 °F	
Melt Temperature	143 - 216 °C	289 - 421 °F	
Mold Temperature	23.9 - 51.7 °C	75.0 - 125 °F	
Back Pressure	0.345 - 0.689 MPa	50.0 - 99.9 psi	
Clamp Pressure	41.0 - 69.0 MPa	5950 - 10000 psi	
Vent Depth	0.00254 cm	0.00100 in	
Cushion	0.317 - 0.635 cm	0.125 - 0.250 in	
Screw Speed	100 - 200 rpm	100 - 200 rpm	

Descriptive Properties	Value	Comments
Change in Mass in IRM 903 Oil at 257°F for 70 hr	0.05	
Color	Natural Color	
Form	Pellets	
Injection Rate	Fast	
Max Regrind	20%	
Screw Compression Ratio	2:1 - 2.5:1	
Screw L/D Ratio	16:1 - 20:1	

## Contact Songhan Plastic Technology Co.,Ltd.

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