Santoprene MSDS Sheet & Materials Characteristics

Description: Santoprene thermoplastic rubber is a family of high-performance elastomers which combine the performance characteristics of vulcanized rubber, such as flexibility and low compression set, with the processing ease of thermoplastics. It is the mixture of in-situ cross linking of EPDM rubber and polypropylene.
Performance: Withstands transient temperatures up to 150 Celsius (300F) and continuous temperatures to 135 Celsius (275F) per SAE J2236 (Standard Method for Determining Continuous Upper Temperature Resistance of Elastomers).
• Fluid resistance similar to polychloroprene for aqueous-based fluids, oils and hydrocarbons.
• Low compression and tension set.
• Outstanding dynamic fatigue resistance.
• Excellent ozone and good weathering resistance.
Compound: Fully vulcanized EPDM rubber particle in a thermoplastic matrix of Polypropylene (PP). Santoprene™ thermoplastic rubber grades are proprietary products. Their composition is trade secret information of Advanced Elastomer Systems, L.P. These products are not identified by CAS number. All components of these products appear on the Inventory of Chemical Substances published by the U.S. Environmental Protection Agency or qualify for the TSCA polymer exemption under U.S. Federal Register Vol. 60, No. 60, 3/29/95. New Jersey Trade Secret Registry No.: 01122800003-5001P.
Color: Black
Agency Ratings: EU 2003/11/EC: Compliant to EU Directive 2003/11/EC regarding marketing and use of certain dangerous substances and preparations, specifically pentabromodiphenyl ether or octabromodiphenyl ether. UL QMFZ2, UL QMFZ8: UL listed: file #QMFZ2.E80017, Plastics - Component; file #QMFZ8.E80017, Plastics Certified For Canada - Component.
ROHS: EU Directive 2002/95/EC (RoHS) compliant.
Automotive Specifications: Chrysler MS-AR100 AGN, Delphi SD-2-346 Sec. 4.1, Ford WSD-M2D378-A1, GM GMP.E/P.001, Valeo VMS-7055
Weight: Approximate weight per square foot: 1/8" weighs 0.45 lbs.
Durometer: 55-65 Shore Hardness (Shore A, 0.0787 in, 73.4 °F): 59. ISO 868
Temperature Range: Continuous -50° to +275° F Intermittent -74° to +300° F
Brittleness Temperature: -76°F, ASTM D-746, ISO 812.
Specific Gravity: 0.970. ASTM D792
Density: 0.970 g/cm2. ISO 1183
Finish: Smooth and Block Design
Tensile Stress at 100%: 300 psi, ASTM D412. Across Flow (73°F) 305 psi, ISO 37. Across Flow (73°F)
Tensile Stress at Break: 750 psi, ASTM D412. Across Flow (73°F) 754 psi, ISO 37. Across Flow (73°F)
Elongation at Break: 400%, ASTM D412. Across Flow (73°F)
Tear Strength: 91 lbf/in, ASTM D624. Across Flow (73°F) 91 lbf/in, ISO 34-1. Across Flow (73°F)
Compression Set: (158°F, 22.0 hr) (257°F, 70.0 hr) ASTM D395 & ISO 815 22% 38%
Dielectric Strength: 770 V/mil, ASTM D149. (0.0800 in)
Dielectric Constant: 2.400 V/mil, ASTM D150. (73°F, 0.0760 in) 2.400 V/mil, IEC 60250. (73.4°F, 0.0760 in)
Gauges: 1/32", 1/16", 1/8", 1/4"