

Santoprene™ 181-55MED

Thermoplastic Vulcanizate

Product Description

A soft, black, specialty thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. It is designed for use in medical and healthcare applications. This grade of Santoprene TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding or extrusion. It is polyolefin based and recyclable within the manufacturing stream.

Key Features

- This grade meets 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.

General

Applications	▪ Medical - Soft Touch Grips, USP Class VI Seals and Gaskets		
Uses	▪ Medical/Healthcare Applications		
Agency Ratings	▪ USP Class VI		
RoHS Compliance	▪ RoHS Compliant		
Color	▪ Black		
Form(s)	▪ Pellets		
Processing Method	▪ Coextrusion ▪ Extrusion	▪ Injection Molding ▪ Multi Injection Molding	▪ Profile Extrusion ▪ Sheet Extrusion

Physical	Typical Value (English)	Typical Value (SI)	Test Based On
Density / Specific Gravity	0.980	0.980	ASTM D792
Density	0.980 g/cm ³	0.980 g/cm ³	ISO 1183

Hardness	Typical Value (English)	Typical Value (SI)	Test Based On
Shore Hardness			ISO 868
Shore A, 15 sec, 73°F (23°C)	59	59	

Elastomers	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Stress at 100% - Across Flow (73°F (23°C))	305 psi	2.10 MPa	ASTM D412
Tensile Stress at 100% - Across Flow (73°F (23°C))	305 psi	2.10 MPa	ISO 37
Tensile Strength at Break - Across Flow (73°F (23°C))	885 psi	6.10 MPa	ASTM D412
Tensile Stress at Break - Across Flow (73°F (23°C))	885 psi	6.10 MPa	ISO 37
Elongation at Break - Across Flow (73°F (23°C))	440 %	440 %	ASTM D412
Tensile Strain at Break - Across Flow (73°F (23°C))	440 %	440 %	ISO 37
Compression Set			ASTM D395B
73°F (23°C), 168 hr, Type 1	19 %	19 %	
Compression Set			ISO 815
73°F (23°C), 168 hr, Type A	19 %	19 %	

