

SANTOPRENE™ 181-55MED - TPV

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

- Biocompatibility in tests corresponding to USP 23 Class VI/ISO 10993
- A representative grade undergoes annual testing for cytotoxicity and heavy metals
- Drug master file maintained with the FDA

Characteristics

Applications	Seals and Gaskets, Soft Touch Grips
Uses	Medical applications
Color	Black
Delivery Form	Pellets
Processing	Coextrusion, Extrusion, Injection molding, Multi injection molding, Profile extrusion, Sheet extrusion

Physical properties	Value	Unit	Test Standard
Density	61.2	lb/ft ³	ASTM D792
Density	61.2	lb/ft ³	ISO 1183

Hardness	Value	Unit
Shore A hardness-TPE, 15s	59	
		ISO 868

Mechanical properties	Value	Unit	Test Standard
Tensile stress at 100%, perpendicular	305	psi	ASTM D412
Tensile stress at 100%, perpendicular	305	psi	ISO 37
Tensile strength at break elast, perpendicular	885	psi	ASTM D412
Tensile stress at break, perpendicular	885	psi	ISO 37
Elongation at break elast, perpendicular	440	%	ASTM D412
Tensile strain at break, perpendicular	440	%	ISO 37
Compression set, 23 °C, 168h, Type 1, Method B	19	%	ASTM D395
Compression set, 23 °C, 168h, Type A	19	%	ISO 815

Other text information

Processing Notes

Desiccant drying for 3 hours at 80 °C (180 °F) is recommended. Santoprene® TPV has a wide temperature processing window from 175 to 230 °C (350 to 450 °F) and is incompatible with acetal and PVC in the molten state.