

SANTOPRENE® 121-73W175J

A soft, black, UV resistant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material combines good physical properties and chemical resistance, and is designed for thin wall or complex profile extrusion applications. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for extrusion, thermoforming or vacuum forming. It is polyolefin based and recyclable within the manufacturing stream.

Key Features

- UL listed: file #QMFZ2.E80017, Plastics - Component; file #QMFZ8.E80017, Plastics Certified For Canada - Component
- Recommended for applications requiring excellent flex fatigue resistance
- Excellent ozone resistance
- Designed for improved UV resistance
- Designed for extruding thin wall sections with excellent definition (down to 0.33 mm [0.013"] radius) and to maximize run length with minimal build-up of material on screen packs or narrow sections of dies

Typical mechanical properties

Stress at 100% elongation	545 psi	ISO 527-1/-2 or ISO 37
Stress at break	1260 psi	ISO 527-1/-2 or ISO 37
Elongation at break	460 %	ISO 527-1/-2 or ISO 37
Brittleness Temperature	-76 °F	ASTM D 746
Low temperature brittleness	-76 °F	ISO 812
Shore A hardness, 15s	78	ISO 48-4 / ISO 868
Shore hardness change, after ageing	1	ISO 48-4 / ISO 868
Compression set at 70°C, 24h	34 %	ISO 815
Compression Set, 125°C, 70h	42 %	ISO 815
Tear strength, normal	154 lb/in	ISO 34-1

Specific Application Suitability

Continuous Upper Temperature Resistance, 1000h	275 °F	SAE J2236
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Flammability

Burning Behav. at thickness h	HB class	UL 94
Thickness tested	3 in	UL 94
UL recognition	yes	UL 94

Electrical properties

Electric Strength, Short Time, 2mm	686 kV/in	ASTM D 149
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Other properties

Density

506 lb/gal

ISO 1183

Extrusion

Drying Temperature

180 °F

Drying Time, Dehumidified Dryer

3 h

Melt Temperature Range

351 - 399 °F

Processing Texts

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. Do not exceed 15% drawdown.

