



# Synprene™ RT-5180 RoHS Natural

## Styrene Butadiene Block Copolymer

### Key Characteristics

#### Product Description

Synprene™ thermoplastic elastomers (TPEs) are compounds based on styrenic block copolymer (SBC) technology, and can be formulated to deliver extremely low hardness values not found in other elastomers. These materials are ideal for applications requiring flexibility over a wide temperature range, excellent colorability, broad processing capability and durability.

#### General

Material Status	• Commercial: Active
Regional Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Features	• Flame Retardant
Uses	• Construction Applications • Consumer Applications • Industrial Applications • Wire & Cable Applications
Appearance	• Natural Color
Forms	• Pellets
Processing Method	• Extrusion • Injection Molding

### Technical Properties <sup>1</sup>

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.26	1.26	ASTM D792
Elastomers	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength <sup>2</sup> (Break)	1550 psi	10.7 MPa	ASTM D412A
Tensile Elongation <sup>2</sup> (Break)	> 600 %	> 600 %	ASTM D412A
Tear Strength <sup>3</sup>	230 lbf/in	40.3 kN/m	ASTM D624
Compression Set (73°F (23°C), 22 hr)	25 %	25 %	ASTM D395B
Bayshore Resilience	39 %	39 %	ASTM D2632
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore A, 10 sec)	80	80	ASTM D2240
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Brittleness Temperature	-61.6 °F	-52.0 °C	ASTM D746
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Dielectric Strength	1100 V/mil	42 kV/mm	ASTM D149
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating (0.13 in (3.2 mm), NC)	V-0	V-0	UL 94
Oxygen Index (0.0620 in (1.57 mm))	27 %	27 %	ASTM D2863

#### Notes

<sup>1</sup> Typical values are not to be construed as specifications.

<sup>2</sup> 20 in/min (510 mm/min)

<sup>3</sup> Die C, 20 in/min (510 mm/min)

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