

VECTOR 2518A

Styrene-Butadiene-Styrene (SBS) Block Copolymer

- SBS⁽¹⁾ triblock copolymer.
- Contains <1% diblock copolymer.
- Medium styrene, high modulus copolymer.
- Outstanding thermal stability.
- Supplied as a porous pellet, dusted with talc.
- VECTOR styrenic block copolymers find use under certain regulations as articles or as ingredients in articles intended for food contact or medical applications. Please contact your Dexco Polymers agent for a detailed letter of certification or further information.

VECTOR 2518A styrene-butadiene-styrene block copolymer is produced via proprietary sequential anionic polymerization technology from Dexco Polymers LP, a Dow/ExxonMobil Venture. VECTOR 2518A is not formulated with the antioxidant TNPP (tris(nonylphenyl) phosphite).

It is more creep resistant than VECTOR 8508A SBS. It has excellent thermoplastic elastomer properties and outstanding physical strength. It is designed for use as an impact/toughness modifier in blends with styrenics and in elastomeric film compounds.

Properties			
Polymer Properties	Test Method	Unit	Typical Values ⁽²⁾
Styrene	Dexco Method	Wt. %	31
Diblock Content	Dexco Method	Wt. %	<1
Melt Flow Rate ⁽³⁾	ASTM D 1238	dg/min	6
Solution Viscosity ⁽⁴⁾	ASTM D 2196	cps	1200
Volatiles	Dexco Method	Wt. %	0.3
Ash	ASTM D 1416	Wt. %	0.7
Physical Properties			
Tensile Strength ⁽⁵⁾	ASTM D 412	PSI (MPa)	4400 (30.3)
300% Modulus ⁽⁵⁾	ASTM D 412	PSI (MPa)	600 (4.1)
Elongation at Break ⁽⁵⁾	ASTM D 412	%	1000
Hardness ⁽⁶⁾	ASTM D 2240	Shore A	78
Specific Gravity	ASTM D 792		0.94
Elastic Properties			
Peak Force @ 500% strain	Stress Relaxation ⁽⁷⁾	PSI (MPa)	1040 (7.2)
Set after 500% strain	Stress Relaxation ⁽⁷⁾	%	16.2
Peak Force @ 200% strain (A)	Stress Relaxation ⁽⁷⁾	PSI (MPa)	320 (2.2)
Relaxation @ 200% strain	Stress Relaxation ⁽⁷⁾	%	5.7
Unload @ 50% strain (B)	Stress Relaxation ⁽⁷⁾	PSI (MPa)	150 (1.0)
Ratio (A:B)	Stress Relaxation ⁽⁷⁾		2.2

- (1) "SBS" denotes linear styrene-butadiene-styrene block polymer.
- (2) Typical values, intended only as guides, and should not be construed as specifications.
- (3) Modified MFR conditions: 200°C/10 kg, 0.1564" capillary.
- (4) 25 Wt. % in toluene at 25°C.
- (5) Tested on roll milled/compression molded plaques (0.035" thick). Tested in the transverse direction.
- (6) 1 sec. dwell.
- (7) Described in US 7,445,831 patent. Tested on roll milled/compression molded plaques (0.035" thick). Tested in the transverse direction at room temperature.

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