

VECTOR 4213A

Styrene-Isoprene-Styrene/Styrene-Isoprene (SIS/SI) Block Copolymer

- SIS triblock / SI diblock (SIS/SI)⁽¹⁾ copolymer blend.
- Contains ~25% SI diblock copolymer.
- Medium styrene copolymer.
- Outstanding thermal stability and melt processability.
- Supplied as a dense 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 4213A is a blend of linear, pure styrene-isoprene-styrene triblock and pure styrene-isoprene diblock copolymers. The individual components are produced via proprietary sequential anionic polymerization technology from Dexco Polymers LP, a Dow/ExxonMobil Venture. It is not formulated with the antioxidant TNPP (tris(nonylphenyl) phosphite).

It is suited for applications where a higher modulus, higher temperature end-use, and enhanced creep resistance is desired versus VECTOR 4113A SIS/SI. It is designed for use in hot melt adhesive applications such as disposable adhesives requiring superior cohesive strength and heat resistance along with low creep compliance.

Properties			
Polymer Properties	Test Method	Unit	Typical Values ⁽²⁾
Styrene	Dexco Method	Wt. %	25
Diblock Content	Dexco Method	Wt. %	25
Melt Flow Rate ⁽³⁾	ASTM D 1238	dg/min	12
Solution Viscosity (4)	ASTM D 2196	cps	970
Volatiles	Dexco Method	Wt. %	0.2
Ash	ASTM D 1416	Wt. %	0.3
Physical Properties			
Tensile Strength ⁽⁵⁾	ASTM D 412	PSI (MPa)	1900 (13.1)
300% Modulus ⁽⁵⁾	ASTM D 412	PSI (MPa)	420 (2.9)
Elongation at Break ⁽⁵⁾	ASTM D 412	%	1200
Hardness ⁽⁶⁾	ASTM D 2240	Shore A	51
Specific Gravity	ASTM D 792		0.94

(1) "SIS/SI" denotes blend of linear styrene-isoprene-styrene triblock copolymer and styrene-isoprene diblock copolymer.

(2) Typical values, intended only as guides, and should not be construed as specifications.

(3) Condition 200°C/5 kg..

(4) 25 Wt. % in toluene at 25°C.

(5) Tested on roll milled/compression molded plaques (0.035" thick). Tested in the machine direction.

(6) 1 sec. dwell.

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