

VECTOR 4215A

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

- SIS triblock / SI diblock (SIS/SI)⁽¹⁾ copolymer blend.
- Contains ~18% 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 4215A 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			
<i>Polymer Properties</i>	Test Method	Unit	Typical Values⁽²⁾
Styrene	Dexco Method	Wt. %	30
Diblock Content	Dexco Method	Wt. %	18
Melt Flow Rate ⁽³⁾	ASTM D 1238	dg/min	9
Solution Viscosity ⁽⁴⁾	ASTM D 2196	cps	720
Volatiles	Dexco Method	Wt. %	0.2
Ash	ASTM D 1416	Wt. %	0.3
<i>Physical Properties</i>			
Tensile Strength ⁽⁵⁾	ASTM D 412	PSI (MPa)	2600 (17.9)
300% Modulus ⁽⁵⁾	ASTM D 412	PSI (MPa)	500 (3.4)
Elongation at Break ⁽⁵⁾	ASTM D 412	%	1000
Hardness ⁽⁶⁾	ASTM D 2240	Shore A	58
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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