

VECTOR 4411A

Styrene-Isoprene-Styrene (SIS) Block Copolymer

- SIS⁽¹⁾ triblock copolymer.
- Contains <1% diblock copolymer.
- High styrene, high modulus 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 4411A is a styrene-isoprene-styrene triblock copolymer 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 a high styrene, low viscosity product with a high modulus and excellent creep resistance. It is the least elastic of the SIS products. It is a flexible thermoplastic resin that can be blended with medium or low styrene SIS and/or SBS copolymers. It is designed for use as a compatibilizer in styrenic/olefinic blends. It has good physical properties and outstanding melt processability. It is particularly suited for use in hot melt adhesive applications for disposable articles.

Properties			
<i>Polymer Properties</i>	Test Method	Unit	Typical Values ⁽²⁾
Styrene	Dexco Method	Wt. %	44
Diblock Content	Dexco Method	Wt. %	<1
Melt Flow Rate ⁽³⁾	ASTM D 1238	dg/min	40
Solution Viscosity ⁽⁴⁾	ASTM D 2196	cps	120
Volatiles	Dexco Method	Wt. %	0.2
Ash	ASTM D 1416	Wt. %	0.2
<i>Physical Properties</i>			
Tensile Strength ⁽⁵⁾	ASTM D 412	PSI (MPa)	3000 (20.7)
300% Modulus ⁽⁵⁾	ASTM D 412	PSI (MPa)	1300 (9.0)
Elongation at Break ⁽⁵⁾	ASTM D 412	%	750
Hardness ⁽⁶⁾	ASTM D 2240	Shore A	87
Specific Gravity	ASTM D 792		0.96

- (1) "SIS" denotes linear styrene-isoprene-styrene triblock 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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