

VECTOR 4114

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

- SIS triblock / SI diblock (SIS/SI)⁽¹⁾ copolymer blend.
- Contains ~42% SI diblock copolymer.
- Low styrene, very low viscosity and very low 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 4114 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 formulated with the antioxidant TNPP (tris(nonylphenyl) phosphite).

It is the softest SIS/SI block copolymer blend due to the presence of ~42% SI diblock. It is designed for use in the modification of the modulus properties of olefinic resins and in formulating adhesives.

Properties			
Polymer Properties	Test Method	Unit	Typical Values ⁽²⁾
Styrene	Dexco Method	Wt. %	15
Diblock Content	Dexco Method	Wt. %	42
Melt Flow Rate ⁽³⁾	ASTM D 1238	dg/min	25
Solution Viscosity ⁽⁴⁾	ASTM D 2196	cps	730
Volatiles	Dexco Method	Wt. %	0.2
Ash	ASTM D 1416	Wt. %	0.5
Physical Properties			
Tensile Strength ⁽⁵⁾	ASTM D 412	PSI (MPa)	2000 (13.8)
300% Modulus ⁽⁵⁾	ASTM D 412	PSI (MPa)	110 (0.7)
Elongation at Break ⁽⁵⁾	ASTM D 412	%	1500
Hardness ⁽⁶⁾	ASTM D 2240	Shore A	24
Specific Gravity	ASTM D 792		0.92

(1) "SIS/SI" denotes blend of a 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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