

## VECTOR 4113A

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

- SIS triblock / SI diblock (SIS/SI)<sup>(1)</sup> copolymer blend.
- Contains ~18% SI diblock copolymer.
- Low styrene, low viscosity, 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 4113A 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 a soft SIS/SI block copolymer blend. It is softer than VECTOR 4111A pure triblock copolymer due to the presence of ~18% SI diblock. It is well suited for use in formulating adhesives and in photopolymer plate applications.

<b>Properties</b>			
<b><i>Polymer Properties</i></b>	<b>Test Method</b>	<b>Unit</b>	<b>Typical Values <sup>(2)</sup></b>
Styrene	Dexco Method	Wt. %	15
Diblock Content	Dexco Method	Wt. %	18
Melt Flow Rate <sup>(3)</sup>	ASTM D 1238	dg/min	10
Solution Viscosity <sup>(4)</sup>	ASTM D 2196	cps	1200
Volatiles	Dexco Method	Wt. %	0.2
Ash	ASTM D 1416	Wt. %	0.3
<b><i>Physical Properties</i></b>			
Tensile Strength <sup>(5)</sup>	ASTM D 412	PSI (MPa)	3600 (24.8)
300% Modulus <sup>(5)</sup>	ASTM D 412	PSI (MPa)	160 (1.1)
Elongation at Break <sup>(5)</sup>	ASTM D 412	%	1300
Hardness <sup>(6)</sup>	ASTM D 2240	Shore A	31
Specific Gravity	ASTM D 792		0.92

(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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