# VECTOR® 4114A

### Styrene Isoprene Styrene + SI Block Copolymer Dexco Polymers LP

#### Message:

VECTOR 4114A

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 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 4114A 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 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

| General Information                             |                         |          |                 |
|---|-------------------------|----------|-----------------|
| Features  | Copolymer               |          |                 |
|   | Food Contact Acceptable |          |                 |
|   | Good Processability     |          |                 |
|   | Good Thermal Stability  |          |                 |
|   | Low Viscosity           |          |                 |
|   | Soft                    |          |                 |
|   |                         |          |                 |
| Uses  | Adhesives               |          |                 |
|   | Plastics Modification   |          |                 |
|   |                         |          |                 |
| Forms   | Pellets                 |          |                 |
| Physical  | Nominal Value           | Unit     | Test Method     |
| Specific Gravity                                | 0.918                   | g/cm³    | ASTM D792       |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)        | 2.5                     | g/10 min | ASTM D1238      |
| Solution Viscosity                              | 730                     | mPa∙s    | ASTM D2196      |
| Ash Content                                     | 0.5                     | wt%      | ASTM D1416      |
| Styrene Content                                 | 15.0                    | wt%      | Internal Method |
| Diblock Content                                 | 42.0                    | wt%      | Internal Method |
| Volatiles                                       | 0.2                     | wt%      | Internal Method |
| Hardness  | Nominal Value           | Unit     | Test Method     |
| Durometer Hardness (Shore A, 1 sec)             | 24                      |          | ASTM D2240      |
| Elastomers                                      | Nominal Value           | Unit     | Test Method     |
| Tensile Stress <sup>1</sup> (300% Strain, 25°C) | 0.758                   | MPa      | ASTM D412       |
| Tensile Strength <sup>2</sup> (Yield, 25°C)     | 13.8                    | MPa      | ASTM D412       |

| Tensile Elongation <sup>3</sup> (Break, 25°C) | 1500                | % | ASTM D412 |
|---|---------------------|---|-----------|
| NOTE  |                     |   |           |
| 1.  | 25 Wt. % in toluene |   |           |
| 2.  | 25 Wt. % in toluene |   |           |
| 3.  | 25 Wt. % in toluene |   |           |

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