

## VECTOR 4111A / VECTOR 4111N Styrene-Isoprene-Styrene (SIS) Block Copolymers

- Linear SIS <sup>(1)</sup> triblock copolymer.
- Contains <1% diblock copolymer.
- Low styrene, low modulus.

VECTOR 4111A and VECTOR 4111N styrenic block copolymers are linear triblock copolymers with narrow molecular weight distributions. They are the softest pure triblock copolymers offered and show outstanding melt processability and elasticity, making them well-suited for use in elastomer compounds and polymer modification applications. The pure triblock also makes them well-suited for use in high shear, pressure sensitive adhesive applications.

- VECTOR 4111A SIS is offered as a dense pellet supplied from the United States.
- VECTOR 4111N SIS is offered as a porous pellet supplied from China.

| Polymer Properties                       | Test Method         | Units             | Typical Value <sup>(2)</sup> |
|--|---------------------|-------------------|------------------------------|
| Styrene                                  | TSRC / Dexco Method | wt%               | 18                           |
| Diblock Content                          | TSRC / Dexco Method | wt%               | <1                           |
| Melt Flow Rate (200°C/5kg)               | ASTM D1238          | g/10 min          | 12                           |
| Solution Viscosity <sup>(3)</sup>        | ASTM D2196          | cps               | 850                          |
| Ash                                      | ASTM D5630          | wt%               | 0.4                          |
| <b>Physical Properties</b>               |                     |                   |                              |
| Tensile at Break <sup>(4)</sup>          | ISO 37              | MPa               | 26                           |
| Stress at 300% Elongation <sup>(4)</sup> | ISO 37              | MPa               | 1.3                          |
| Elongation at Break <sup>(4)</sup>       | ISO 37              | %                 | 1200                         |
| Hardness <sup>(5)</sup>                  | ASTM D2240          | Shore A           | 40                           |
| Bulk Density                             | ASTM D1895          | g/cm <sup>3</sup> | 0.55 (4111A)<br>0.33 (4111N) |
| Specific Gravity                         | ASTM D792           |                   | 0.92                         |

- 1) SIS denotes a linear styrene-isoprene-styrene triblock copolymer.
- 2) Not to be construed as specifications.
- 3) 25 wt% in Toluene; 25°C.
- 4) Roll-milled, compression-molded plaques.
- 5) Dwell time 1 second.

**TSRC**