

BST Elastomers Co., Ltd.

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Specification of BSTE SBR1502

(Spec. Code : BSTE-STD-008)

Technical Data Sheet

Chemical Identification

Emulsion Styrene Butadiene Rubber (E-SBR)

Product Characteristic

RAW POLYMER

| | Unit | Specification Value | | Test Method |
|-----------------------------|------|---------------------|---------|---------------------------------|
| | | Minimum | Maximum | |
| Volatile Matter Content | % | - | 0.75 | ASTM D5668-99 |
| Ash Content | % | - | 0.75 | ASTM D5667-95 (Reapproved 2000) |
| Soap Content | % | - | 0.50 | ASTM D5774-95 (Reapproved 2000) |
| Organic Acid | % | 4.75 | 7.00 | ASTM D5774-95 (Reapproved 2000) |
| Bound Styrene | % | 22.5 | 24.5 | ASTM D5775-95 (Reapproved 2000) |
| Raw Mooney Viscosity | MU | 47 | 57 | ASTM D1646-03 |
| ML1+4@100°C (Massed Method) | | | | |

COMPOUND PROPERTIES

| | | | | |
|-------------------------------------|-----|------|------|--------------------------------|
| Compound Mooney Viscosity | MU | 72 | 86 | ASTM D1646-03 |
| ML1+4@100°C | | | | |
| Tensile Strength, 145°C & 35 min | MPa | 25.5 | 33.3 | ASTM D412-98 (Reapproved 2002) |
| Elongation at Break, 145°C & 35 min | % | 380 | 540 | ASTM D412-98 (Reapproved 2002) |
| 300% Modulus@145°C | | | | |
| 25 minutes | MPa | 12.0 | 18.0 | ASTM D412-98 (Reapproved 2002) |
| 35 minutes | MPa | 15.1 | 20.9 | ASTM D412-98 (Reapproved 2002) |
| 50 minutes | MPa | 17.2 | 22.8 | ASTM D412-98 (Reapproved 2002) |

COMPOUND RECIPE (ASTM D3185)

| | Parts |
|--------------------|-------|
| Raw SBR1502 | 100 |
| HAF Black (IRB#7) | 50 |
| Zinc Oxide | 3 |
| Stearic Acid | 1 |
| Accelerator (TBBS) | 1 |
| Sulfur | 1.75 |

Compounding condition : 6 inch Two Roll Mill