

BST Elastomers Co., Ltd.

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Specification of BSTE SBR1723

(Spec. Code : BSTE-STD-012)

Technical Data Sheet**Chemical Identification**

Oil Extended Emulsion Styrene Butadiene
Rubber (E-SBR)

Product Characteristic**RAW POLYMER**

| | Unit | Specification Value | | Test Method |
|-----------------------------|------|---------------------|---------|---------------------------------|
| | | Minimum | Maximum | |
| Volatile Matter | % | - | 0.50 | ASTM D5668-19 |
| Ash Content | % | - | 1.50 | ASTM D5667-95 (Reapproved 2019) |
| Soap Content | % | - | 0.50 | ASTM D5774-95 (Reapproved 2019) |
| Organic Acid | % | 4.20 | 6.20 | ASTM D5774-95 (Reapproved 2019) |
| Bound Styrene | % | 22.5 | 24.5 | ASTM D5775-95 (Reapproved 2019) |
| Oil Content | % | 25.8 | 28.8 | ASTM D5774-95 (Reapproved 2019) |
| Raw Mooney Viscosity | MU | 43 | 53 | ASTM D1646-19a |
| ML1+4@100°C (Massed Method) | | | | |

COMPOUND PROPERTIES

| | | | | |
|-------------------------------------|-----|------|------|----------------|
| Compound Mooney Viscosity | MU | 55 | 65 | ASTM D1646-19a |
| ML1+4@100°C | | | | |
| Tensile Strength @ 145°C, 35 min | MPa | 19.1 | - | ASTM D412-16 |
| Elongation at Break @ 145°C, 35 min | % | 480 | - | ASTM D412-16 |
| 300% Modulus@145°C | | | | |
| 25 minutes | MPa | 6.7 | 11.5 | ASTM D412-16 |
| 35 minutes | MPa | 7.9 | 12.7 | ASTM D412-16 |
| 50 minutes | MPa | 9.0 | 13.8 | ASTM D412-16 |

COMPOUND RECIPE (ASTM D3185 - 06 (Reapproved 2016))

| | Parts |
|--------------------|--------|
| Raw SBR1723 | 137.50 |
| HAF Black (IRB#7) | 68.75 |
| Zinc Oxide | 3 |
| Stearic Acid | 1 |
| Accelerator (TBBS) | 1.38 |
| Sulfur | 1.75 |

Compounding condition : 6 inch Two Roll Mill