

# BST Elastomers Co., Ltd.

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## Specification of BSTE SBR1712

(Spec. Code : BSTE-STD-010)

### Technical Data Sheet

#### Chemical Identification

Oil Extended Emulsion Styrene Butadiene  
Rubber (E-SBR)

#### Product Characteristic

#### RAW POLYMER

	<u>Unit</u>	<u>Specification Value</u>		<u>Test Method</u>
		Minimum	Maximum	
Volatile Matter Content	%	-	0.75	ASTM D5668-09 (Reapproved 2014)
Ash Content	%	-	0.75	ASTM D5667-95 (Reapproved 2015)
Soap Content	%	-	0.50	ASTM D5774-95 (Reapproved 2014)
Organic Acid	%	3.90	5.70	ASTM D5774-95 (Reapproved 2014)
Bound Styrene	%	22.5	24.5	ASTM D5775-95 (Reapproved 2014)
Oil Content	%	25.8	28.8	ASTM D5774-95 (Reapproved 2014)
Raw Mooney Viscosity ML1+4@100 <sup>0</sup> C (Massed Method)	MU	42	52	ASTM D1646-15

#### COMPOUND PROPERTIES

Compound Mooney Viscosity ML1+4@100 <sup>0</sup> C	MU	54	64	ASTM D1646-15
Tensile Strength, 145 <sup>0</sup> C & 35 min	MPa	21.1	27.1	ASTM D412-15a
Elongation at Break, 145 <sup>0</sup> C & 35 min	%	540	690	ASTM D412-15a
300% Modulus@145 <sup>0</sup> C				
25 minutes	MPa	6.8	10.8	ASTM D412-15a
35 minutes	MPa	8.2	12.0	ASTM D412-15a
50 minutes	MPa	9.2	13.0	ASTM D412-15a

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

	<u>Parts</u>
Raw SBR1712	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