

BST Elastomers Co., Ltd.

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 D5668-21
Ash Content	%	-	0.75	ASTM D5667-95 (Reapproved 2019)
Soap Content	%	-	0.50	ASTM D5774-95 (Reapproved 2019)
Organic Acid	%	3.90	5.70	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	42	52	ASTM D1646-19a
ML1+4@100°C (Massed Method)				

COMPOUND PROPERTIES

Compound Mooney Viscosity	MU	54	64	ASTM D1646-19a
ML1+4@1000C				
Tensile Strength, 145°C & 35 min	MPa	21.1	27.1	ASTM D412-16 (2021)
Elongation at Break, 145°C & 35 min	%	540	690	ASTM D412-16 (2021)
300% Modulus@145°C				
25 minutes	MPa	6.8	10.8	ASTM D412-16 (2021)
35 minutes	MPa	8.2	12.0	ASTM D412-16 (2021)
50 minutes	MPa	9.2	13.0	ASTM D412-16 (2021)

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

	<u>Parts</u>
Raw SBR1712	137.50
HAF Black (IRB#8)	68.75
Zinc Oxide	3
Stearic Acid	1
Accelerator (TBBS)	1.38
Sulfur	1.75

Compounding condition : 6 inch Two Roll Mill