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	**Unit**	**Specification Value**		**Test Method**
		Minimum	Maximum	
Volatile Matter Content	%	-	0.75	ASTM D5668-19
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^{0}C (Massed Method)				
COMPOUND PROPERTIES				
Compound Mooney Viscosity	MU	54	64	ASTM D1646-19a
ML1+4@100^{0}C				
Tensile Strength, 145^{0}C & 35 min	MPa	21.1	27.1	ASTM D412-16
Elongation at Break, 145^{0}C & 35 min	%	540	690	ASTM D412-16
300% Modulus@145^{0}C				
25 minutes	MPa	6.8	10.8	ASTM D412-16
35 minutes	MPa	8.2	12.0	ASTM D412-16
50 minutes	MPa	9.2	13.0	ASTM D412-16

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