BST Elastomers Co., Ltd.

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 D5668-21
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^{0}C (Massed Method)				

COMPOUND PROPERTIES

Compound Mooney Viscosity	MU	55	65	ASTM D1646-19a
ML1+4@100^{0}C				
Tensile Strength @ 145^{0}C, 35 min	MPa	19.1	-	ASTM D412-16 (2021)
Elongation at Break @ 145^{0}C, 35 min	%	480	-	ASTM D412-16 (2021)
300% Modulus@145^{0}C				
25 minutes	MPa	6.7	11.5	ASTM D412-16 (2021)
35 minutes	MPa	7.9	12.7	ASTM D412-16 (2021)
50 minutes	MPa	9.0	13.8	ASTM D412-16 (2021)

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