

TECHNICAL DATA SHEET



STYRENE BUTADIENE RUBBER

Material:

Emulsion styrene-butadiene rubber is produced by cold polymerization using a mixture of rosin acid and fatty acid soaps as emulsifiers and is extended with 37.5 phr of DAE oil. The product is free from any nitrosating agent and essentially free from pre-formed nitrosamines and nitrosable substances. The 35 kg dark brown bales, having typical specific gravity as 0.95, are wrapped in polyethylene film for further packaging.

Sr. No.	Parameter	Unit	Typical Value	Test Method
1.0 ELASTOMER PROPERTIES				
1.1	Massed Mooney Viscosity - ML(1+4)@100°C	MU	51.0	ASTM D1646
1.2	Volatile Matter	wt%	0.2	ASTM D5668-C
1.3	Ash Content	wt%	0.1	ASTM D5667-A
1.4	Organic Acids	wt%	6.0	ASTM D5774
1.5	Soaps	wt%	0.2	ASTM D5774
1.6	Oil content	wt%	27.3	ASTM D5774
1.7	ETA Extract	wt%	32.5	ASTM D5774
1.8	Bound Styrene	wt%	23.4	ASTM D5775
2.0 COMPOUND PROPERTIES - ASTM D3185 - 2B (For reference)				
2.1	Compound Mooney Viscosity - ML(1+4)@100°C	MU	68.0	ASTM D1646
3.0 RHEOLOGICAL PROPERTIES : MDR (160° C / 0.5° arc / 100 cpm / 30 min)				
3.1	Minimum Torque - M _L	dN.m	2.6	ASTM D5289
3.2	Maximum Torque - M _H	dN.m	14.5	ASTM D5289
3.3	tS1	min	4.2	ASTM D5289
3.4	t50	min	7.5	ASTM D5289
3.5	t90	min	13.0	ASTM D5289
4.0 PHYSICAL PROPERTIES (Curing - 35 min. @145° C)				
4.1	Tensile Strength	MPa	21.8	ASTM D412
4.2	Modulus @ 300%	MPa	10.8	ASTM D412
4.3	Elongation at Break	%	520	ASTM D412

Shelf Life / Storage Condition:

Material should be covered and stored in a cool, dry and well ventilated place at a temperature below 40°C. Proper care needs to be taken so that the material does not get exposed to direct sunlight, ultraviolet light or rain water. For prolonged storage, it is recommended to cover the material with black polythene film to protect it from direct sunlight. Under proper storage conditions as described above, product shelf life of Relflex™ Stylamer SBR1712 grade is 12 months from the date of manufacturing.