

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 TDAE oil. The product is free from any nitrosating agent and essentially free from pre-formed nitrosamines and nitrosable substances. The 35kg brown bales, having typical specific gravity as 0.94, are wrapped in easily dispersible polyethylene film for further packaging.

TEST	UNIT	TEST METHOD	TYPICAL VALUE
Typical Elastomer Properties:			
1.1 Mooney Viscosity (Massed)	ML(1+4)@100°C	ASTM D1646	50.0
1.2 Volatiles	Wt%	ASTM D5668-C	0.2
1.3 Ash Content	Wt%	ASTM D5667-A	0.1
1.4 Organic Acids	Wt%	ASTM D5774	4.5
1.5 Soaps	Wt%	ASTM D5774	0.2
1.6 Oil content	phr	ASTM D5774	37.5
1.7 ETA Extract	Wt%	ASTM D5774	32.5
1.8 Bound Styrene	Wt%	ASTM D5775	23.5
Typical Compound Properties (with IRB#8) : ASTM D3185-2B (For Reference)			
2.1 Compounded Mooney	ML(1+4)@100°C	ASTM D1646	63.0
Physical Properties: (Curing - 35 min @145°C)			
3.1 Tensile Strength	MPa	ASTM D412	23.0
3.2 Elongation at Break	%	ASTM D412	510
3.3 Modulus at 300 % Elongation	MPa	ASTM D412	11.5
Rheological Properties: MDR- (160°C/ 0.5° arc/ 100 cpm/ 30 min)			
4.1 Minimum Torque, ML	dN.m	ASTM D5289	2.4
4.2 Maximum Torque, MH	dN.m	ASTM D5289	13.3
4.3 TS1	Minutes	ASTM D5289	3.9
4.4 TS2	Minutes	ASTM D5289	6.0
4.5 T50	Minutes	ASTM D5289	7.7
4.6 T90	Minutes	ASTM D5289	13.0

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 SBR 1723 grade is 12 months from the date of manufacturing.