

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. The product is free from any nitrosating agent and essentially free from pre-formed nitrosamines and nitrosable substances. The 35 kg brown bales, having typical specific gravity as 0.93, 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 | 6.0 |
| 1.5 Soaps | Wt% | ASTM D5774 | 0.2 |
| 1.6 Bound Styrene | Wt% | ASTM D5775 | 23.4 |
| Typical Compound Properties (with IRB#8): ASTM D3185-1A (For Reference) | | | |
| 2.1 Compounded Mooney | ML(1+4)@100°C | ASTM D1646 | 78.0 |
| Physical Properties: (Curing - 35 min @145°C) | | | |
| 3.1 Tensile Strength | MPa | ASTM D412 | 25.4 |
| 3.2 Elongation at Break | % | ASTM D412 | 420 |
| 3.3 Modulus at 300 % Elongation | MPa | ASTM D412 | 17.0 |
| Rheological Properties: MDR- (160°C/ 0.5° arc/ 100 cpm/ 30 min) | | | |
| 4.1 Minimum Torque, ML | dN.m | ASTM D5289 | 2.7 |
| 4.2 Maximum Torque, MH | dN.m | ASTM D5289 | 21.0 |
| 4.3 TS1 | Minutes | ASTM D5289 | 2.3 |
| 4.4 T 50 | Minutes | ASTM D5289 | 7.2 |
| 4.5 T 90 | Minutes | ASTM D5289 | 14.0 |

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 1502 grade is 12 months from the date of manufacturing.