

Technical Data Sheet

Product: STYRENE BUTADIENE RUBBER (1783) Relflex



Manufacturer
 Reliance Industries Limited



License
 VERSALIS (ITALY)

Description 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 RAE oil. The product is free from any nitrosating agent and essentially free from pre-formed nitrosamines and nitro sable substances.

Application Styrene butadiene rubber (1783) is also preferred in applications such as passenger car, light truck tyres, truck tyre retreads, conveyor belts, shoe soles, V-belts, molded rubber goods, gaskets, hoses, brake & clutch pads, automobile mats, flooring, rubber toys, food packaging, adhesives and chewing gum among others.

Specifications

| Parameter | Value | Test Method |
|--|-------|-----------------|
| Elastomer properties | | |
| Massed Mooney Viscosity - ML (1+4) @ 100°C, MU | 50.0 | ASTM D 1646 |
| Volatile Matter, wt% | 0.2 | ASTM D 5668 - C |
| Ash content, wt% | 0.1 | ASTM D 5667 - A |
| Organic Acids, wt% | 5.0 | ASTM D 5774 |
| Soaps, wt% | 0.2 | ASTM D 5774 |
| Oil content, wt% | 27.3 | ASTM D 5774 |
| ETA Extract, wt% | 32.5 | ASTM D 5774 |
| Bound Styrene, wt% | 23.5 | ASTM D 5775 |
| Compound properties- ASTM D3185 – 2B (For reference) | | |
| Compound Mooney Viscosity - ML(1+4) @100°C, MU | 65.0 | ASTM D 1646 |
| Rheological properties: MDR (160°C / 0.5° arc / 100 cpm / 30 min) | | |
| Minimum Torque - M _L , dN.m | 2.5 | ASTM D 5289 |
| Maximum Torque – M _H , dN.m | 14.3 | ASTM D 5289 |
| tS1, min | 4.5 | ASTM D 5289 |
| t50, min | 8.4 | ASTM D 5289 |
| T90, min | 15.0 | ASTM D 5289 |
| Physical properties (Curing – 35 min. @145°C) | | |
| Tensile Strength, MPa | 21.0 | ASTM D 412 |
| Modulus @ 300%, MPa | 10.6 | ASTM D 412 |
| Elongation at Break, % | 500 | ASTM D 412 |

Packaging The 35 kg bales having typical specific gravity of 0.95 are wrapped in polyethylene film and packed in MB5-size metal boxes, 30 bales in each box.

Storage and transportation 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 rainwater. For prolonged storage, it is recommended to cover the material with black polythene film to protect it from direct sunlight.

REACH registration no.: 01-2119457861-32-0381; CAS no.: 100-42-5; EC no.: 202-851-5 (Styrene)

REACH registration no.: 01-2119471988-16-0123; CAS no.: 106-99-0; EC no.: 203-450-8 (1,3 Butadiene)

