

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)

