

# Technical Data Sheet

## Product: STYRENE BUTADIENE RUBBER (1502) Reflex



**Manufacturer**  
 Reliance Industries Limited



**License**  
 VERSALIS (ITALY)

**Description** Emulsion styrene-butadiene rubber is produced by cold polymerisation using a mixture of rosin acid and fatty acid soaps as emulsifiers. The product is free from any nitro-sating agent and essentially free from pre-formed nitrosamines and nitro sable substances.

**Application** Styrene butadiene rubber (1502) is also preferred in applications such as conveyor belts, shoe soles, V-belts, moulded rubber goods etc. It is also extensively used in the manufacture of other products, such as extruded gaskets, hoses, brake & clutch pads, automobile mats, flooring, rubber toys and adhesives among others.

### Specifications

Parameter	Value	Test Method
<b>Elastomer properties</b>		
Massed Mooney Viscosity - ML (1+4) @ 100°C, MU	51.0	ASTM D 1646
Volatile Matter, wt%	0.2	ASTM D 5668 - C
Ash content, wt%	0.1	ASTM D 5667 - A
Organic Acids, wt%	6.0	ASTM D 5774
Soaps, wt%	0.2	ASTM D 5774
Bound Styrene, wt%	23.4	ASTM D 5775
<b>Compound properties- ASTM D3185 - 1A (For reference)</b>		
Compound Mooney Viscosity - ML(1+4) @100°C, MU	80.0	ASTM D 1646
<b>Rheological properties: MDR (160°C / 0.5° arc / 100 cpm / 30 min)</b>		
Minimum Torque - M <sub>L</sub> , dN.m	2.7	ASTM D 5289
Maximum Torque - M <sub>H</sub> , dN.m	21.0	ASTM D 5289
tS1, min	2.3	ASTM D 5289
t50, min	7.2	ASTM D 5289
T90, min	14.0	ASTM D 5289
<b>Physical properties (Curing - 35 min. @145°C)</b>		
Tensile Strength, MPa	25.4	ASTM D 412
Modulus @ 300%, MPa	17.5	ASTM D 412
Elongation at Break, %	420	ASTM D 412

**Packaging** The 35 kg amber-colored bales, having a typical specific gravity of 0.93, are wrapped in polyethylene film for further packaging.

**Storage and transportation** The 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)