

# SBR 1500

## Properties and Characteristics

Manufactured by Sinopec

SBR 1500 is a high molecular weight grade of Styrene Butadiene Rubber that displays good extrusion behavior and superior compound properties. Its high strength and elasticity allows for excellent resistance to cutting, tearing, and abrasion. SBR is produced with the patent technique licensed from Zeon, Japan. The whole unit was designed and provided by Mitsubishi Heavy Industries Ltd. Using butadiene and styrene as the main feedstock, SBR is produced at low temperatures (5°C) through the emulsion polymerization process. Compared with natural rubber, SBR possesses outstanding abrasion resistance, age resistance, ozone resistance, water resistance, and air-tightness. Its homogenous characteristics allow for blending with natural rubbers in any proportion.

## Specifications

Property	Value
CAS Number	9003-55-8
Appearance	Yellow-brown elastic solids
Other Names	Styrene Butadiene Rubber 1500
Molecular Formula	C <sub>12</sub> H <sub>14</sub>
Molecular Weight	158.24

Item	Unit	SBR 1500 Index
Volatiles	% ≤	1.30
Ash	% ≤	1.50
Organic Acid	%	3.90 – 7.25
Soap	% ≤	0.50
Bound Styrene	%	22.5 – 24.5
Oil Content	%	—
Raw Viscosity	ML(1+4) 100°C	45 – 59
Compound Viscosity	ML(1+4) 100°C ≤	88
300% Modulus	(145°C, 25min) MPa ≥	—
300% Modulus	(145°C, 35min) MPa ≥	14.2 ± 20.2
300% Modulus	(145°C, 50min) MPa ≥	—
Tensile Strength	(145°C, 35min) MPa ≥	19.6
Elongation at Break	(145°C, 35min) % ≥	570

\*According to standard SBR1500 (GB8655-88)

## **Applications**

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SBR 1500 is widely used in brightly colored and light rubber products such as tire products, tread rubber, transparent rubber footwear, taping, medical products, conveyer belts, and other ferrous products. SBR 1500 is also used in molded and extruded mechanical goods.

## **Packaging**

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35kg net weight internal polyethylene-coated plastic woven bags, or as required by customer.

## **Storage**

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Store in a cool, dry, and well-ventilated place, away from direct sunlight and moisture.