



Lion Elastomers LLC

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## SBR 1763 Elastomer

## Product Data

SBR 1763 is an environmentally friendly version of SBR 1721 replacing aromatic extender oil with 37.5 parts of low Polycyclic Aromatic Hydrocarbon naphthenic oil. It was developed for tire applications.

### Unique Features

- ▶ Cold polymerized styrene-butadiene elastomer
- ▶ Naphthenic oil extended

### Applications

- ▶ Passenger & heavy-service treads
- ▶ Retread rubbers and bicycle tires

### Typical Properties

<u>Property</u>	<u>Test Method</u>	<u>Typical</u>
Bound Styrene, Weight % .....	ASTM D5775	22.5 – 24.5
Mooney viscosity, MML 1+4 (100°C) .....	ASTM D1646	45 - 55
Oil Weight % .....	ASTM D5774	25.8 – 28.8
Oil, type .....	Naphthenic	
Organic acid, Weight % .....	ASTM D5774	4.0 – 6.0
Soap, Weight % .....	ASTM D5774	0.5 Max.
Ash, Weight % .....	ASTM D5667	0.80 Max.
Volatile matter, Weight % .....	ASTM D5668	0.75 Max.
Emulsifier .....	—	Mixed acid
Coagulant .....	—	Acid
Stabilizer .....	—	Staining
Specific gravity, g/cc (bale).....	—	0.95
Physical form*, lbs/bale .....	—	80.0 (36 kg)

**SBR 1763 is an environmentally friendly version of SBR 1721 replacing aromatic extender oil with a naphthenic oil. It is recommended for applications such as passenger and heavy-service treads, retread rubbers, and bicycle tires.**

\* This product is available in 80 lb rectangular bales individually wrapped in 1.5 mil, low melting point film and shipped in returnable aluminum OTD.

**Note:** Antioxidant is added to this polymer to provide protection during manufacture and storage. The end user's process may require additional antioxidant protection.

## **SBR 1763 Elastomer**

### **Rheometric Properties (MDR 2000 rheometer)**

**Test Method** – ASTM D5289\*\*

<b><u>Property</u></b>	<b><u>Result</u></b>
M <sub>L</sub> lbf-in .....	0.8 – 2.8
dN-m .....	0.9 – 3.2
M <sub>H</sub> lbf-in .....	10.3 – 14.3
dN-m .....	11.6 – 14.9
t <sub>s</sub> 1, minutes .....	4.1 – 6.1
t' 50, minutes .....	7.0 – 11.0
t' 90, minutes .....	12.8 – 17.8

<b><u>Test Formula (ASTM D3185 2B)</u></b>	<b><u>Quantity, Parts</u></b>	<b><u>Material</u></b>
	<b><u>by Mass</u></b>	
SBR 1763 oil-extended elastomer .....	137.50	
Zinc oxide .....	3.00	IRM 91A
Sulfur .....	1.75	IRM 031
Stearic acid .....	1.00	IRM 021
Oil furnace black .....	68.75	IRB #8
TBBS .....	1.38	IRM 003

\*\*160°C, 1°Arc

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