



Lion Elastomers LLC

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## SBR 1778 Elastomer

## Product Data

SBR 1778 is a general-purpose cold polymerized, naphthenic oil-extended elastomer. It exhibits excellent UV light stability for a SBR polymer.

### Unique Features

- ▶ Cold polymerized styrene-butadiene elastomer
- ▶ Ultraviolet light stability
- ▶ Naphthenic oil extended for improved processing

### Applications

- ▶ Coating fabrics
- ▶ White sidewalls and tires carcasses
- ▶ Footwear and mechanical rubber goods

### Typical Properties

<b>Property</b>	<b>Test Method*</b>	<b>Typical</b>
Polymer, parts .....	—	100
Oil, parts – Naphthenic .....	—	37.5
Mooney viscosity, MML 1+4 (100°C) .....	—	47 - 57
Bound Styrene, Weight % .....	—	22.5 – 24.5
Organic acid, Weight % .....	—	4.0 – 6.0
Soap, Weight % .....	—	0.5 Max.
Ash, Weight % .....	—	0.70 Max.
Volatile matter, Weight % .....	ZS 1008K	0.75 Max.
Emulsifier .....	—	Mixed acid
Coagulant .....	—	Acid
Stabilizer .....	—	Non-staining
Specific gravity, g/cc (bale).....	ASTM D-792	0.93
Physical form**, lbs/bale .....	—	80.0 (36 kg)

**SBR 1778 is finds use in applications such as coated fabrics, white sidewalls, tire carcasses, footwear and mechanical goods, especially where non-staining, non-discoloration and very light color is desired.**

\* Company Test Methods

\*\* 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 1778 Elastomer**

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

<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 .....	9.8 – 13.8
dN-m .....	11.1 – 15.6
t <sub>s</sub> 1, minutes .....	5.0 – 7.0
t' 50, minutes .....	8.1 – 12.1
t' 90, minutes .....	14.0 – 19.6

<b><u>MRG Test Recipe (ASTM 3185 2B)</u></b>	<b><u>Weight</u></b>	<b><u>Reference Material</u></b>
SBR 1778 oil-extended elastomer .....	137.5	
Zinc oxide .....	3.0	IRM 91A
Sulphur .....	1.75	NIST SRM 371
Stearic acid .....	1.0	NIST SRM 372
Oil furnace black .....	68.75	IRB #8
TBBS .....	1.38	NIST RM 8384

**SBR 1778 is a general-purpose cold polymerized, naphthenic oil-extended elastomer. It exhibits excellent UV light stability for a SBR polymer. Key applications include coated fabrics, white sidewalls, tire carcasses, footwear and mechanical goods, especially where non-staining, non-discoloration and very light color is desired.**

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