



Lion Elastomers LLC

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SBR 1778 Elastomer

Product Data

SBR 1778 is a general-purpose cold polymerized elastomer extended with 37.5 parts of naphthenic oil. 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

<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	47 - 57
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	0.70 Max.
Volatile matter, Weight %	ASTM D5668	0.75 Max.
Emulsifier	—	Mixed acid
Coagulant	—	Acid
Stabilizer	—	Non-staining
Specific gravity, g/cc (bale).....	—	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.

* 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.

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Rheometric Properties (MDR 2000 rheometer)

Test Method – ASTM D5289**

<u>Property</u>	<u>Result</u>
M _L lbf-in	0.8 – 2.8
dN-m	0.9 – 3.2
M _H lbf-in	9.8 – 13.8
dN-m	11.1 – 15.6
t _s 1, minutes	5.0 – 7.0
t' 50, minutes	8.1 – 12.1
t' 90, minutes	14.0 – 19.6

<u>Test Formula (ASTM D3185 2B)</u>	<u>Quantity, Parts</u>	<u>Material</u>
	<u>by Mass</u>	
SBR 1778 oil-extended elastomer	137.50	
Zinc oxide	3.00	IRM 91A
Sulphur	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

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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