



Lion Elastomers LLC

1615 Main Street • P.O. Box 667 • Port Neches, TX 77651
800 / 535-9960 • www.lionelastomers.com

SBR 1783L Elastomer

Product Data

SBR 1783L is an environmentally friendly version of SBR 1712 replacing aromatic extender oil with a 37.5 parts of low Polycyclic Aromatic Hydrocarbon RAE oil. It was developed for tire applications.

Unique Features

- ▶ Cold polymerized styrene-butadiene elastomer
- ▶ Lower Mooney viscosity & RAE 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, %	ASTM D5775	22.5 – 24.5
Mooney viscosity, MML 1+4 (100°C)	ASTM D1646	40 - 50
Oil Weight %.....	ASTM D5774	25.8 – 28.8
Oil, type	RAE	
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 1783L is an environmentally friendly version of SBR 1712 replacing aromatic extender oil with an RAE 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 1783 Elastomer

Rheometric Properties (MDR 2000 rheometer)

Test Method – ASTM D5289**

<u>Property</u>	<u>Result</u>
M _L lbf-in	0.7 – 2.7
dN-m	0.8 – 3.1
M _H lbf-in	9.8 – 13.8
dN-m	11.1 – 15.6
t _s 1, minutes	4.3 – 6.3
t' 50, minutes	6.9 – 10.9
t' 90, minutes	13.7 – 18.7

<u>Test Formula (ASTM D3185 2B)</u>	<u>Quantity, Parts by Mass</u>	<u>Material</u>
SBR 1783L 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

SBR 1783 is an environmentally friendly version of SBR 1712 replacing aromatic extender oil with RAE oil. It is recommended for applications such as passenger and heavy-service treads, retread rubbers, and bicycle tires.

Notice: All information supplied by or on behalf of Lion Elastomers LLC in relation to its products, whether in the nature of data, recommendations or otherwise, is supported by research and believed reliable, but Lion Elastomers LLC assumes no liability whatsoever in respect of application, processing or use made of the aforementioned information or products, or any consequence thereof. The buyer undertakes all liability in respect of the application, processing or use made of the aforementioned information or product, whose quality and other properties he shall verify, or any consequence thereof. No liability whatsoever shall attach to Lion Elastomers LLC for any infringement of the rights owned or controlled by a third party in intellectual, industrial or other property by reason of the application, processing or use of the aforementioned information or products by the buyer.