



Lion Elastomers LLC

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

SBR 1686 Elastomer

Product Data

SBR 1686 is a carbon black master batch (CBMB) based on SBR 1500 latex and N-330 carbon black. It has a low level of oil extension and provides high tensile properties.

Unique Features

- ▶ Cold polymerized styrene-butadiene elastomer
- ▶ Carbon black master batch
- ▶ Low level extender oil

Applications

- ▶ Tire treading
- ▶ Conveyor belting and mechanical rubber goods

Typical Properties

<u>Property</u>	<u>Test Method*</u>	<u>Typical</u>
Polymer, parts	—	100
Carbon black, N-330	—	52
Oil, parts – RAE	—	10
Mooney viscosity, UMS 4+4 (100°C)	—	37 - 57
Bound Styrene, Weight %	—	22.5 – 24.5
Organic acid, Weight %	—	3.1 – 5.1
Soap, Weight %	—	0.5 Max.
Ash, Weight %	—	0.50 Max.
Volatile matter, Weight %	ZS 1008K	0.75 Max.
Carbon black, Weight %	—	30.6 – 33.6
Emulsifier	—	Rosin acid
Coagulant	—	Acid
Stabilizer	—	Staining
Specific gravity, g/cc (bale).....	ASTM D-792	1.12
Physical form**, lbs./bale	—	90.0 (41 kg)

SBR 1686 is an oil extended, carbon black master batch SBR with 52 parts of N-330 carbon black. Low level extender oil provides high tensile properties in a variety of rubber goods such as tire treads, conveyor belts and mechanical rubber goods.

* Company Test Methods

** This product is available in 90 lb. rectangular bales, shipped stretch wrapped on a wooden pallet. Bales are dipped.

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 1686 Elastomer

Rheometric Properties (MDR 2000 rheometer)

<u>Property</u>	<u>Result</u>
M _L lbf-in	0.4 – 2.4
dN-m	0.5 – 2.7
M _H lbf-in	12.2 – 16.2
dN-m	13.8 – 18.3
t _s 1, minutes	4.4 – 6.4
t' 50, minutes	7.3 – 11.3
t' 90, minutes	12.6 – 17.6

Test Formula (ASTM 3186)

	<u>Quantity, Parts</u>	<u>Material</u>
	<u>by Mass</u>	
SBR 1606L oil-extended, CBMB elastomer	162	
Zinc oxide	3.0	IRM 91A
Sulfur	1.75	IRM 031
Stearic acid	1.5	IRM 021
TBBS	1.25	IRM 003

SBR 1686 is an oil extended, carbon black master batch based on SBR 1500 latex with 52 parts of N-330 carbon black. Low level extender oil provides high tensile properties in applications such as tire treads, conveyor belts and mechanical rubber goods.

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.