



Lion Elastomers LLC

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SBR 1013 Elastomer

Product Data

Hot polymerized SBR 1013 elastomer is used in adhesives, tire liners, and mechanical rubber goods, including auto mounts and household products.

Unique Features

- ▶ Hot polymerized styrene-butadiene elastomer
- ▶ Low air permeability
- ▶ High bound Styrene content for green strength
- ▶ Exceptionally light colored and excellent flow

Applications

- ▶ Tape and general purpose adhesives
- ▶ Mechanical rubber goods and floor tile
- ▶ Tire liners

Typical Properties

<u>Property</u>	<u>Test Method*</u>	<u>Typical</u>
Mooney viscosity, MML 1+4 (100°C)	—	40 - 50
Bound Styrene, Weight %	—	42.0 – 45.0
Organic acid, Weight %	—	4.0 – 6.0
Soap, Weight %	—	0.5 Max.
Ash, Weight %	—	1.5 Max.
Volatile matter, Weight %	ZS 1008K	0.75 Max.
Emulsifier	—	Fatty acid
Coagulant	—	Acid
Stabilizer	—	Non-Staining
Specific gravity, g/cc (bale).....	ASTM D-792	0.96
Color	—	White
Physical form**, lbs/bale	—	70.0 (32 kg)

SBR 1013 elastomer is a high bound-Styrene, exceptionally light colored, hot polymerized SBR polymer. It features high green strength, low air permeability, and excellent flow characteristics.

* Company Test Methods

** This product is available in 70 lb rectangular bales individually wrapped in 1.5 mil, low melting point film and shipped in two cell cardboard containers.

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)

<u>Property</u>	<u>Result</u>
M _L lbf-in	0.5 – 2.5
dN-m	0.6 – 2.8
M _H lbf-in	13.0 – 17.0
dN-m	14.7 – 19.2
t _s 1, minutes	4.3 – 6.3
t' 50, minutes	7.4 – 11.4
t' 90, minutes	14.0 – 19.0

MRG Starting Point Formulation

	<u>Weight</u>	<u>Reference Material</u>
SBR 1013 elastomer	100.0	
Zinc oxide	3.0	IRM 91A
Sulphur	1.75	NIST SRM 371
Stearic acid	1.0	NIST SRM 372
Oil furnace black	50.0	IRB #8
TBBS	1.0	NIST RM 8384

SBR 1013 elastomer is recommended for adhesives, tire liners, mechanical rubber goods, including auto mounts, and household products.

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