Lion Elastomers LLC

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SBR 1769 Elastomer Product Data

SBR 1769 is an environmentally friendly version of SBR 1721 with the highest bound styrene content, and a naphthenic oil extender oil. It was developed for tire applications.

Unique Features

- Cold polymerized styrene-butadiene elastomer
- Highest bound styrene and naphthenic oil extender

Applications

- Passenger & heavy-service treads
- Retread rubbers and bicycle tires

Typical Properties

Property	Test Method*	Typical
Polymer, parts ……..	—	100
Oil, parts – Naphthenic …….	—	37.5
Mooney viscosity, MML 1+4 (100˚C) …….	—	45 - 55
Bound Styrene, Weight % ……..	—	39.0 – 41.0
Organic acid, Weight % ……..	—	4.1 – 5.7
Soap, Weight % …….	—	0.5 Max.
Ash, Weight % ……..	—	0.70 Max.
Volatile matter, Weight %	ZS 1008K	0.75 Max.
Emulsifier ……..	—	Mixed acid
Coagulant ……..	—	Acid
Stabilizer …….	—	Staining
Specific gravity, g/cc (bale)…..……..	ASTM D-792	0.95
Physical form**, lbs/bale …….	—	80.0 (36 kg)

SBR 1769 is an environmentally friendly version of SBR 1721 replacing aromatic extender oil with a naphthenic oil. It is recommended for applications such as passenger and heavy-service treads, retread rubbers, and bicycle tires.

* 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 cardboard containers or 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)

Property	Result
M_L lbf-in	1.2 – 3.2
dN-m	1.4 – 3.6
M_H lbf-in	10.6 – 14.6
dN-m	12.0 – 16.5
t_s 1, minutes	3.6 – 5.6
t' 50, minutes	7.2 – 11.2
t' 90, minutes	13.8 – 18.8

MRG Test Recipe (ASTM 3185 2B)	Weight	Reference Material
SBR 1769 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

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