



Lion Elastomers LLC

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SBR 1606L Elastomer

Product Data

SBR 1606L 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> |
|---|---------------------|----------------|
| Carbon black, type, phr | N330 | 52 |
| Carbon black, Weight % | 5.16.02* | 30.6 – 33.6 |
| Oil type, phr | Highly Aromatic | 10 |
| Oil, Weight %..... | ASTM D5774 | 4.7 – 7.7 |
| Mooney viscosity, UMS 4+4 (100°C) | ASTM D1646 | 37 - 57 |
| Bound Styrene, Weight % | ASTM D5775 | 22.5 – 24.5 |
| Organic acid, Weight % | ASTM D5774 | 3.1 – 5.1 |
| Soap, Weight % | ASTM D5774 | 0.5 Max. |
| Ash, Weight % | ASTM D5667 | 0.50 Max. |
| Volatile matter, Weight % | ASTM D5668 | 0.75 Max. |
| Emulsifier | — | Rosin acid |
| Coagulant | — | Acid |
| Stabilizer | — | Staining |
| Specific gravity, g/cc (bale)..... | — | 1.12 |
| Physical form**, lbs/bale | — | 90.0 (41 kg) |

SBR 1606L 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 Method

** This product is available in 90 lb rectangular bales individually wrapped in 1.5 mil, low melting point film and 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.

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Rheometric Properties (MDR 2000 rheometer)

Test Method – ASTM D5289***

| <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 D3186)

| <u>Test Formula (ASTM D3186)</u> | <u>Quantity, Parts by Mass</u> | <u>Material</u> |
|--|---|------------------------|
| SBR 1606L oil-extended, CBMB elastomer | 162 | |
| Zinc oxide | 3.00 | IRM 91A |
| Sulfur | 1.75 | IRM 031 |
| Stearic acid | 1.50 | IRM 021 |
| TBBS | 1.25 | IRM 003 |

***160°C, 1°Arc

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