

## **BUNA™ SB 1739-SCHKOPAU**

## **COLD POLYMERISED EMULSION STIRENE**

## **BUTADIENE RUBBER (E-SBR)**

### **Composition**

BUNA™ SB 1739-Schkopau is manufactured by cold polymerization using mixed rosin acid/fatty acid soaps. In relation to solid rubber it is plasticized with 37.5 parts of TDAE oil which does comply with EU DIRECTIVE 2005/69/EC for use in tires within the EU. A discoloring stabilizer is added during the production process.

### **Application**

BUNA™ SB 1739-Schkopau is a general purpose rubber. It can be processed in all sectors of the tire and rubber industry. The main application is tire production, imparting improved grip and handling performance due to its increased styrene content.

### **Packaging**

- BUNA™ SB 1739-Schkopau is supplied in bales of 25 kg nominal weight.
- Bales are wrapped in 50 micron polyethylene film (Vicat softening temperature: 92 °C).
- One box contains forty eight bales (nominal 1200 kg)

### **Specification sheet**

Raw material specification sheets are available from Trinseo or your local supplier on request.

### **Handling precautions**

- BUNA™ SB SB 1739-Schkopau has to be kept away from sources of ignition.
- Reference must be made to the Safety Data Sheet for this product.
- The precautions advised in the Safety Data Sheet should be strictly observed.

### **Storage**

BUNA™ SB 1739-Schkopau should be stored in an adequately ventilated area where it will not be subjected to direct sunlight or temperatures in excess of 30 °C. Under these conditions BUNA™ SB 1739-Schkopau has a shelf life of at least 12 months.

## CHARACTERISTIC PROPERTIES OF BUNA™ SB 1739-SCHKOPAU

### Chemical and Physical Data

Property	Test Method	Unit	Value
<b>Mooney viscosity<sup>(1)</sup></b>	ASTM D 1646	MU	52.0
<b>Bound styrene</b>	ASTM D 5775	%	40.2
<b>Total extractables</b>	ASTM D 5774	%	31.8
<b>Organic acid</b>	ASTM D 5774	%	4.3
<b>Volatile matter<sup>(2)</sup></b>	ASTM D 5668	%	0.4
<b>Ash</b>	ASTM D 5667	%	0.04
<b>Specific gravity</b>	SM <sup>(3)</sup>	g/cm <sup>3</sup>	0.95

(1) ML 1+4 (100 °C) massed sample (2) 1 h at 105 °C in a hot air oven, 5 g sample (3) Supplier Method

### Test Formulation (ASTM D 3185-1A based on IRB8 black)

	Parts by Mass
<b>Polymer</b>	100.0
<b>Carbon black IRB8</b>	50.0
<b>Zinc oxide</b>	3.0
<b>Sulphur</b>	1.75
<b>Stearic acid</b>	1.0
<b>Accelerator (TBBS)</b>	1.0

### Rheometer<sup>a) b)</sup>

Property	Test Method	Unit	Value
<b>t<sub>s2</sub></b>	ASTM D 5289 <sup>(4)</sup>	min	5.7
<b>t<sub>c(50)</sub></b>	ASTM D 5289	min	8.4
<b>t<sub>c(90)</sub></b>	ASTM D 5289	min	17.1
<b>ML</b>	ASTM D 5289	dNm	2.3
<b>MH</b>	ASTM D 5289	dNm	15.6

### Vulcanisate Data<sup>a) b)</sup>

Property	Test Method	Unit	Value
<b>Tensile strength</b>	ASTM D 412 <sup>(5)</sup>	MPa	23.1
<b>Elongation at break</b>	ASTM D 412	%	460.0
<b>Modulus 300%</b>	ASTM D 412	MPa	14.4

(4) Test temperature 160 °C (5) Cure: 45 minutes at 145 °C (a) Material properties are typical properties and do not constitute a sales specification.  
(b) All figures are based on the test procedures of the Schkopau test lab.

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