

## BUNA™ CIS 132-SCHKOPAU

# HIGH-CIS BUTADIENE RUBBER (BR)

### Composition

BUNA™ cis 132-Schkopau is a stereospecific butadiene with a high 1,4-cis content. It is manufactured by a solution process using an organo-metallic nickel catalyst which produces a consistent light coloured polymer with low ash content.

BUNA™ cis 132-Schkopau contains a non-staining stabilizer.

### Application

BUNA™ cis 132-Schkopau is widely used in the tire industry but also in the production of conveyor belts and other rubber articles which are exposed to high cyclical stress. It offers good abrasion resistance, high resilience, low hysteresis, and a low glass transition temperature.

BUNA™ cis 132-Schkopau offers excellent processability and may be blended with natural rubber and styrene butadiene (SBR), isoprene (IR), nitrile (NBR), or polychloroprene (CR) synthetic rubbers. Due to its non-staining stabilizer BUNA™ cis 132-Schkopau is suitable for light-coloured rubber articles also when compounded with selected thermoplastics.

### Packaging

- BUNA™ cis 132-Schkopau is supplied in bales of 30 kg nominal weight.
- Bales are wrapped in 50 micron polyethylene film (Vicat softening temperature: 92 °C).
- One box contains forty bales (nominal 1200 kg).

### Specification sheet

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

### Handling precautions

- BUNA™ cis 132-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™ cis 132-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™ cis 132-Schkopau has a shelf life of at least 12 months.

## CHARACTERISTIC PROPERTIES OF BUNA™ CIS 132-SCHKOPAU

### Chemical and Physical Data

Property	Test Method	Unit	Value
<b>Mooney viscosity<sup>(1)</sup></b>	ASTM D 1646	MU	45.0
<b>Cis-1,4 content</b>	SM <sup>(2)</sup> (FTIR)	%	95.0
<b>Volatile matter<sup>(3)</sup></b>	ASTM D 5668	% mass	0.24
<b>Total ash</b>	ASTM D 5667	% mass	0.01
<b>Gel content</b>	SM <sup>(2)</sup>	%	0.03
<b>Specific gravity</b>	SM <sup>(2)</sup>	g/cm <sup>3</sup>	0.91

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

### Test Formulation (ASTM D 3189 based on IRB8 black)

	Parts by Mass
<b>Polymer</b>	100.0
<b>Carbon black IRB8</b>	60.0
<b>Plasticiser</b>	15.0
<b>Zinc oxide</b>	3.0
<b>Sulphur</b>	1.5
<b>Stearic acid</b>	2.0
<b>Accelerator (TBBS)</b>	0.9

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

Property	Test Method	Unit	Value
<b>t<sub>2</sub></b>	ASTM D 5289 <sup>(4)</sup>	min	5.9
<b>t<sub>c</sub>(50)</b>	ASTM D 5289	min	8.0
<b>t<sub>c</sub>(90)</b>	ASTM D 5289	min	11.6
<b>ML</b>	ASTM D 5289	dNm	2.7
<b>MH</b>	ASTM D 5289	dNm	16.9

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

Property	Test Method	Unit	Value
<b>Tensile strength</b>	ASTM D 412 <sup>(5)</sup>	MPa	17.4
<b>Elongation at break</b>	ASTM D 412	%	490.0
<b>Modulus 300%</b>	ASTM D 412	MPa	9.1

(4) Test temperature 160 °C (5) Cure: 35 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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