
BUNA™ SB 1723 - Schkopau Cold Polymerised Emulsion Styrene Butadiene Rubber (E-SBR)

- Composition** BUNA™ SB 1723 – Schkopau is manufactured by cold polymerisation using mixed rosin acid / fatty acid soaps. In relation to solid rubber it is plasticised with 37.5 parts of TDAE oil which does comply with EU DIRECTIVE 2005/69/EC for use in tyres within the EU. A discolouring stabiliser is added during the production process.
- Application** BUNA™ SB 1723 – Schkopau is a general purpose rubber. It can be processed in all sectors of the tyre and rubber industry. The main application is tyre production.
- Packaging**
- BUNA™ SB 1723 – 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 bales (nominal 1000 kg)
- Specification sheet** Raw material specification sheets are available from Styron or your local supplier on request.
- Handling precautions**
- BUNA™ SB 1723 – 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 1723 – 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 1723 – Schkopau has a shelf life of at least 12 months.

Characteristic Properties of BUNA™ SB 1723 - Schkopau

Chemical and Physical Data

Property	Test method	Unit	Value
Mooney viscosity ⁽¹⁾	ASTM D 1646	MU	50.0
Bound Styrene	ASTM D 5775	%	23.5
Total Extractables	ASTM D 5774	%	32.3
Organic Acid	ASTM D 5774	%	4.7
Volatile Matter ⁽²⁾	ASTM D 5668	%	0.3
Ash	ASTM D 5667	%	0.05
Specific gravity	SM ⁽³⁾	g/cm ³	0.93

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 based on IRB7 black)

	Parts by Mass
Polymer	100.0
IRB7 industry reference oil furnace carbon black	50.0
Zinc oxide	3.0
Sulphur	1.75
Stearic acid	1.0
N-tert-butyl-2-benzothiazole sulphenamide (TBBS)	1.0

Rheometer^{a) b)}

Property	Test method	Unit	Value
t _{s2}	ASTM D5289 ⁽⁴⁾	min	5.1
t _c (50)	ASTM D5289	min	7.6
t _c (90)	ASTM D5289	min	13.1
ML	ASTM D5289	dNm	2.4
MH	ASTM D5289	dNm	17.3

Vulcanisate Data^{a) b)}

Property	Test method	Unit	Value
Tensile strength	ASTM D412 ⁽⁵⁾	MPa	22.0
Elongation at break	ASTM D412	%	460
Modulus 300%	ASTM D412	MPa	13.3

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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