SKS-1759 / SBR-1759 STYRENE-BUTADIENE RUBBER

Styrene-butadiene rubber SKS-1759 (SBR -1759) is the copolymer of styrene and butadiene manufactured by cold emulsion polymerization using mixed rosin acid/fatty acid soaps, filled with naphthenic oil Nytex 4700 and staining antioxidant.
The monomers and oil are registered under EU REACH.
APPLICATION: used in production of high speed automobile tires and heat-resistant conveyor belts.
Rubber should not contain any foreign impurities and must meet the following requirements:

Appearance: briquettes (bales)
Weight: 30.0±1.0 kg
Colour: from dark-brown to black

TECHNICAL REQUIREMENTS

Parameter	Standard	Test Method	Note
Mooney viscosity ML 1+4 (100°C)	50-60	ASTM D 1646 (para.7.2.2)	☑
Viscosity spread within a batch, units, max	6	---	☑
Ash content, %, max	0.6	ASTM D 5667 (part A)	☑
Volatile matter content, %, max	0.75	ASTM D 5668 (method C)	☑
Bound styrene content, %	38.5-41.5	method of supplier	☑
Oil (Nytex 4700) content, %	25-29	method of supplier	☑
Organic acids content, %	4.0-6.0	method of supplier	☑
Organic acids soaps content, %, max	0.4	method of supplier	☑
Antioxidant content, %:			
VS-1* or	0.3-0.7	method of supplier	☑
Agidol-2	0.6-1.2		

Rheometric Properties according to ASTM D 5289			
ML, dNm	2.1±1.0	ASTM D 5289	✧
MH, dNm	15.8±2.5	ASTM D 5289	✧
ts1, min	3.9±1.0	ASTM D 5289	✧
t'50, min	7.7±1.5	ASTM D 5289	✧
t'90, min	14.6±2.0	ASTM D 5289	✧

* product of hexamethylenetetramine and monoalkylphenol condensation.
☑- specified in the certificate of quality.
✧ - non-rejectable.

Preparation of rubber mixes is carried out in accordance with ASTMD 3185 recipe 1A, mixing - according to method A. Mixing mills are prepared according to ASTM D 3182. Rheometric properties are determined according to ASTM D 5289 using an MDR 2000 rheometer (flow meter). Wait time for rubber mix before testing is 2-6 hours.

Rubber mix recipe in parts by weight acc. to ASTM D 3185, recipe 1A:

Rubber	100.00;
Zinc oxide	3.00;
IRB 7 (N330) carbon black	50.00;
Sulphur	1.75;
Stearic acid	1.00;
TBBS (N-tert-Butyl-2-benzothiazolesulfenamide)	1.00.

Rheometer MDR 2000, measurement conditions:

Temperature, °C	160
Duration, min	30
Oscillation amplitude, deg.	0.5
Oscillation frequency, Hz	1.7

PACKING: Rubber briquettes (bales) are packaged in marked PE film (thickness of 0.05 ± 0.01 mm, melting temperature of 108-112°C), then – in plastic box pallets of 450kg or in plywood containers of 1,080kg, or metal containers of 1,260kg.

TRANSPORTATION: Rubber is transported by all types of transport in covered transporting means in accordance to all rules of cargo's transportation standing at transport of this form.

STORAGE: At a temperature not exceeding 30°C, in dry place free from direct sunlight.

GUARANTEED SHELF LIFE: 1 (one) year from the manufacture date. After the expiration of the guaranteed shelf life, the rubber can be used for its intended purpose after confirmation of its conformity to the requirements of this product specification.