SKI-5PM cis-isoprene synthetic rubber is cis-1.4-polyisoprene produced by polymerization of isoprene in solution using stereospecific catalyst based on neodymium compounds. The rubber is stabilized by mixture of two non-staining antioxidants.
Content of cis-1,4-units, min: 98 %.
CAS #9003-31-0. The monomers are registered under EU REACH.

**APPLICATION:** widely used for production of rubbers used in food and medical industries, in manufacture of individua protection means for respiratory tract (gas masks), color rubber products and other industrial purposes.
Rubber should not contain any foreign impurities and must meet the following requirements:

**Appearance:** briquettes (bales)
**Weight:** 30.0±1.0 kg
**Colour:** from white to light-milky
**Specific gravity:** 0.91-0.92 g/cm³

## TECHNICAL REQUIREMENTS

| Parameter | Standard | Test Method | Note |
|---|---|---|---|
| Mooney viscosity ML 1+4 (100°C) | 72-84 | ASTM D 1646 | ☑ |
| Viscosity spread within a batch, units, max | 5 | | ☑ |
| Volatile matter content, %, max (1 hour) | 0.7 | ASTM D 5668 | ☑ |
| Stearic acid content, % | 0.6-1.4 | Method used in the Russian Federation | ☑ |
| Ash content, %, max | 0.5 | ASTM D 5667 | ☑ |
| Extract content, %, max | 3.0 | ASTM D 5774 | ☑ |
| Mixture of antioxidants:<br>Agidol-1 (BHT) content, %<br>Tris (2,4-di-tert-butylphenyl) phosphite content, % | <br>0.15-0.40<br>0.04-0.20 | Method used in the Russian Federation | ☑ |
| **Rheometric Properties** | | | |
| ML, dNm | 1.0-2.0 | ASTM D 5289 | ✧ |
| MH, dNm | 10.4-15.0 | ASTM D 5289 | ✧ |
| ts1, min | 2.0-3.2 | ASTM D 5289 | ✧ |
| t'50, min | 3.5-5.0 | ASTM D 5289 | ✧ |
| t'90, min | 6.0-8.0 | ASTM D 5289 | ✧ |

☑ - specified in the certificate of quality.
✧ - non-reiectable.

Preparation of rubber mixes is carried out in accordance with ASTM D 3403-07, mixing - according to C method (on the roll mills). Roll mills are prepared according to ASTM D 3182-07. Vulcanization characteristics 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:**

| | |
|---|---|
| Rubber | 100.00 |
| Zinc oxide | 5.00 |
| IRB 7 (N330) carbon black | 35.00 |
| Sulphur | 2.25 |
| Stearic acid | 2.00 |
| TBBS (N-tert-Butyl-2- benzothiazolesulfenamide) | 0.70 |

**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 double-layer marked PE film (thickness of 0.05 ± 0.01 mm, melting temperature of 108-112°C), then – in plastic box pallets of 540kg or in plywood 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:** Under normal conditions of storage (at a temperature not exceeding 30°C, in dry place free from direct sunlight)

**GUARANTEED SHELF LIFE:** 2 (two) years 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.