# KER® N-2960

## Acrylonitrile-Butadiene Rubber - NBR

Material Data Sheet
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Edition: 4
Approved by: Zdeněk Herber, Product manager
Previous editions of this document have lost their validity.

### CHARACTERISTICS

KER® N-2960 is a grade of butadiene-acrylonitrile rubber. It is produced by a technology of cold emulsion copolymerization, based on soaps of rosin and fatty acids and contains abt. 29% of chemically bonded acrylonitrile. It is coagulated by a system of acid and synthetic coagulant, does not contain extender oil and is stabilized by a non-staining antioxidant.

### GENERAL REQUIREMENTS

Bales of synthetic rubber KER® N-2960 should be close to dimensions 720x360x180 mm. Presence of any mechanical impurities is not permitted.

### TECHNICAL PARAMETERS

**RUBBER TECHNICAL PARAMETERS**

| Parameters | Units | Values | Test methods |
|---|---|---|---|
| Mooney viscosity ML 1+4 (100°C) – massed | °ML | 53 ÷ 65 | ASTM D1646 |
| Volatile matters | % wt. | max. 0,7 | ASTM D5668 |
| Total ash | % wt. | max. 0,4 | ASTM D5667 |
| Organic acids | % wt. | 1,5 ÷ 3,5 | ASTM D5774 |
| Soaps | % wt. | max. 0,3 | ASTM D5774 |
| Bonded acrylonitrile | % wt. | 27,0 ÷ 31,0 | ISO 24698-2 |

**VULCANIZATE TECHNICAL PARAMETERS**

| Parameters | Units | Values | Test methods |
|---|---|---|---|
| Tensile strength | MPa | min. 20,0 | ASTM D412 |
| Elongation at break | % | min. 420 | ASTM D412 |
| Stress at 300% elongation | MPa | min. 12,0 | ASTM D412 |
| Vulcanizate mass change in mixture of 70parts (v/v) of isooctane and 30parts (v/v) of toluene | % | max. 33.0 | ISO 1817 |

**STANDARD RUBBER COMPOUND COMPOSITION**

Acc. to ASTM D3187, formulation 1A, carbon black IRB 7. Prepared using laboratory two roll-mill. Vulcanization conditions: temperature 150°C, time 40 minutes.

Guaranteed values of relevant technical parameters of the product are each time agreed upon in the sales contract.

To each shipping lot/delivery a quality certificate including data on properties of the product determined during release control is issued. Scope of the testing which is covered by the quality certificate is each time agreed upon in the sales contract.

### PACKAGING

KER® is baled to form a rubber blocks weighing 33 kg (± 0.5 kg). Each bale is wrapped in PE film, which is an integral part of the product and on which labelling of a specific colour relating to the respective rubber grade is present.

The blocks are laid into wooden boxes, net weight of each complete box is about 1000 kg. Alternatively it is possible to supply product in returnable metal boxes. Net weight of each complete box is about 1200 kg.

**Synthos Dwory 7 spółka z ograniczoną odpowiedzialnością S.K.A.**

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In case of wooden 1 000 kg boxes storage of the product in two (2) or more layers (stacking) is not permitted.

Each pallet bears a self-adhesive label on which manufacturer's name, product name and grade, production lot number, net and gross weight, production date and labelling required by relevant regulations (if needed) are given.

## TRANSPORTATION

KER® is typically transported in covered road trucks, in covered railway carriages and in standard shipping containers.

KER® N-2960 is not a dangerous material to transport.

## STORAGE

Product should be stored in sheltered conditions away from direct sunlight, at least 2 meters away from radiant heating elements and the temperature should not exceed 30°C. The guaranteed shelf life for KER® under the above-mentioned conditions is twelve (12) months from the date of production.

## APPLICATION

KER® N-2960 is used for production of technical articles resistant to oils and liquid fuels. It contains a non-staining antioxidant, so it can be used for production of goods in light colours.



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