

# Styrene-Butadiene Rubber - SBR

## **Material Data Sheet**

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Previous editions of this document have lost their validity.

## **CHARACTERISTICS**

KRALEX® 1783 is a standard grade of styrene-butadiene rubber. It is produced by a technology of cold emulsion copolymerization based on soaps of rosin and fatty acids and contains 23.5% of chemically bonded styrene. It is coagulated by a system of acid and synthetic coagulant, contains 27% (37.5 PHR) of extender oil with reduced content of polycyclic aromatics (RAE grade) and is stabilized by a staining antioxidant.

## **GENERAL REQUIREMENTS**

Bales of synthetic rubber KRALEX® 1783 should be close to dimensions 700x360x180 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	44 ÷ 54	ASTM D1646
Volatile matters	% wt.	max. 0,75	ASTM D5668
Total ash	% wt.	max. 0,4	ASTM D5667
Organic acids	% wt.	$3,6 \div 5,4$	ASTM D5774
Soaps	% wt.	max. 0,3	ASTM D5774
Oil content	% wt.	25,6 ÷ 28,8	ASTM D5774
Bounded styrene	% wt.	22,5 ÷ 24,5	ASTM D5775

## **VULCAMETRIC PARAMETERS**

Parameters	Units	Values	Test methods
ML	dNm	1,9 ÷ 2,6	ASTM D5289
MH	dNm	15,0 ÷ 18,0	ASTM D5289
Ts1	min.	3,0 ÷ 5,0	ASTM D5289
Tc90	min.	12,0 ÷ 15,5	ASTM D5289

### STANDARD RUBBER COMPOUND COMPOSITION

Vulcametric parameters in the table relate to the properties of the Standard Testing Compound of SBR KRALEX® 1783.

All grades of SBR KRALEX® are tested using standard laboratory chemicals and procedures according to ASTM D3185 - 1A using a laboratory two roll-mill and carbon black - IRB 7. The MDR 2000E Rotorless Cure Meter is used for the measuring of vulcanizing characteristics (1.7 Hz, ± 0.5° arc, 160 °C).

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.



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### **PACKAGING**

KRALEX® 1783 is baled to form of rubber blocks weighing 33 kg (± 0,7kg) and measuring 700 x 360 x 180 mm. Each block is wrapped in PE film, which is assigned a specific colour relating to the respective rubber grade.

The blocks are laid into returnable metal boxes. Net weight of each complete box is about 1200 kg. Alternatively it is possible supply product in wooden boxes, which sit on returnable wooden or steel palettes. Net weight of each complete box is about 800 kg.

A self-adhesive label is fixed to each box and displays the following data: name of the producer, name of the product and designation of type, batch number, number of the palette, gross and net weight, date of manufacture.

### **TRANSPORTATION**

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

KRALEX® 1783 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 KRALEX® under the above-mentioned conditions is twelve (12) months from the date of production.

#### **APPLICATION**

KRALEX® 1783 is appropriate for rubber compounds used in the production of car tyres including tyre re-treading, conveyor belts and various technical rubber articles.

It is not approved for production of rubber articles coming into contact with foods or drinking water.

This document is of an informative character. The information given herein is based on the present state of our knowledge and experience. It makes neither product properties nor qualitative parameters guarantee and cannot be used as a basis of any claims. The information provided cannot be used for any mixtures with any other substances. Product should be transported, stored and used in accordance with valid regulations and good occupational hygiene practice.

Making use of the information as well as product application is beyond the producer control and determination of the safe conditions of use is the sole responsibility of a customer.



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