

# SYNTION® 1810

Solution-styrene butadiene rubber (S-SBR)

## Technical Data Sheet

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Edition: 4

Approved by: Paweł Weda, Product Manager

Previous editions of this document have lost their validity.

## CHARACTERISTICS

SYNTION® 1810 is a specialty dry grade of low-vinyl solution-styrene butadiene rubber. It is produced by anionic copolymerization technology based on a lithium catalyst. It contains 18.5% chemically bonded styrene and is stabilized with a non-staining antioxidant.

## GENERAL REQUIREMENTS

Bales of SYNTION® 1810 synthetic rubber should have approximate dimensions 720x360x180 mm. The presence of mechanical impurities is not permitted.

## TECHNICAL PARAMETERS

### RUBBER TECHNICAL PARAMETERS

Parameters	Units	Values	Test methods
Mooney viscosity ML 1+4 (100°C) – unmassed	°ML	65 ÷ 75	ASTM D1646
Volatile matter	% wt.	max. 0,75	ASTM D5668
Bound styrene	% wt.	17,0 ÷ 20,0	Own method
1,2-butadiene structure (vinyl) content	% wt.	8,0 ÷ 12,0	Own method
Organic acids content	% wt.	0,5 ÷ 1,3	ASTM D5774
Glass transition temperature (Tg), typical	°C	-75	Own method

Guaranteed values for relevant technical parameters of the product are agreed in each case in the sales contract. A quality certificate is issued for each shipping lot/delivery, which contains information on the properties of the product determined during release. The scope of the tests covered by the quality certificate is agreed in each case in the sales contract.

## PACKAGING

SYNTION® 1810 is compressed in the form of rubber blocks weighing 33 kg (± 1.0 kg) and measuring 720 x 360 x 180 mm. Each block is wrapped in PE film with a specific imprint for the particular type of rubber. The blocks are placed in reusable metal boxes. The net weight of each complete box is about 1200 kg. Alternatively, it is possible to deliver the product in wooden boxes, the net weight of each complete box is about 1000 kg. In the case of wooden crates weighing 1000 kg, storage of the product in two (2) or more layers (stacking) is not permitted. A self-adhesive label is placed on each crate, which contains the following information: Name of the producer, name of the product and type designation, batch number, number of the crate, gross and net weight, date of manufacture.

## TRANSPORTATION

SYNTION® is typically shipped in covered road trucks, covered rail cars, and in standard shipping containers. SYNTION® is not a hazardous material to be transported.

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## STORAGE

The product should be stored in sheltered conditions away from direct sunlight and at least 2 meters from radiant heating elements and the temperature should not exceed 30°C. The guaranteed shelf life for SYNTION® under the above conditions is eighteen (18) months from the date of production.

## APPLICATION

SYNTION® 1810 is suitable for rubber compounds for the production of tyres with low rolling resistance and low wear, especially solid tyres, and for various technical rubber articles. Thanks to the non-staining antioxidant, the compounds can have bright colours.

SYNTION® 1810 does not contain substances that exclude it from the production of rubber articles that come into contact with food or drinking water.

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*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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The logo for Synthos, featuring the word "synthos" in a blue, lowercase, sans-serif font. The letter "o" is stylized with a green hexagonal shape inside it.