Technical Data Sheet

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® VULCOFERRAN 2208T

The new soft rubber lining for protection of tank truck trailers and tank wagons

Description
VULCOFERRAN 2208T is a soft rubber lining system based on a special bromobutyl rubber composition (BIIR) which can be vulcanised in an autoclave or directly in the tank wagon under pressure using steam. Generally the layer thickness of the rubber sheet is 4 mm, but can vary depending on the requirements.
VULCOFERRAN 2208T was especially developed for truck trailers and tank wagons due to the frequent alternating cargos.

Typical uses
VULCOFERRAN 2208T is applied as internal rubber lining for tank truck trailers, tank wagons and freight containers. VULCOFERRAN 2208T serves as protection for the base materials against the attack of dangerous goods such as acids, lyes and other corrosive, hydrous media as well as wastes.

Properties
VULCOFERRAN 2208T is distinguished by an outstanding chemical resistance to alkaline and acidic media.
Special attention is to be paid to the resistance to sodium hypochlorite with a high concentration of active chlorine.
VULCOFERRAN 2208T is well suited for the utilisation with varying cargo, such as hydrochloric acid, lyes, sodium hypochlorite and brines.
VULCOFERRAN 2208T has excellent mechanical properties.
Compared with the formerly applied soft rubber linings based on hypalon, VULCOFERRAN 2208T has crucial advantages regarding the chemical resistance. Even the resistance to temperature is obviously higher and can reach up to max. 120 °C depending on the medium.

Chemical resistance
Information on the chemical resistance properties can be taken from our guide to chemical resistance tank truck trailers and tank wagons.

Substrate
The substrate is steel. All steel structures must meet the requirements contained in EN 14879-1.

Surface pre-treatment
The steel surface must be blasted to a metallic white finish. A preparation degree of Sa 2 ½ as specified in DIN EN ISO 12944-4 and a roughness degree of "medium (G)" as specified in DIN EN ISO 8503-1 must be achieved; minimum roughness R_z = 50 µm (Segment 2). After blasting, the steel surface must be primed.
Stainless steel must be blasted with non-ferritic grit.

Application
The VULCOFERRAN 2208T rubber lining system is composed of the single-component Primer 1, the single -component Primer 2, the one-component VULCOFERRAN-Bonding Solution 2206/L1 and the VULCOFERRAN 2208T rubber sheet.

Apply the Primer 1, then the Primer 2 to the steel substrate, followed by two coats of the VULCOFERRAN Bonding Solution 2206/L1. Coat the rubber sheet with the VULCOFERRAN Bonding Solution 2206/L1. The rubber sheets are then firmly pressed and bonded to the substrate using a heated tool in compliance with DIN 28055-1. A durable and solid bonding will be reached by the subsequent vulcanisation procedure.

Consumption

Primer 1:	approx. 0.15 kg/m²
Primer 2:	approx. 0.20 kg/m²
VULCOFERRAN Bonding Solution 2206/L1:	approx. 0.60 kg/m²

Packing
The following standard quantities are available:

Primer 1	23 kg
Primer 2	25 kg
VULCOFERRAN Bonding Solution 2206/L1	16 kg

Storage
The products shall be stored in a cool and dry place. With a storage temperature of 23°C the minimum shelf life is as follows:

VULCOF. 2208T rubber sheet	1 month
VULCOF. 2208T rubber sheet at < 15°C	4 months
Primer 1	12 months
Primer 2	6 months
VULCOFERRAN Bonding Solution 2206/L1, non-accelerated	12 months

Higher temperatures will shorten the shelf life of this products. The packaging drums are to be kept tightly shut and are to be resealed each time material has been removed. All liquid products must be stored frost-free.

Safety
Adequate ventilation shall be provided during the execution of all work. Ventilation is compulsory for vapours that are produced during processing must all work carried out in pits and closed rooms. All be continuously suctioned off at floor or bottom level.
Only such amount of material effectively required to continue work is to be stored at the working place. The instructions for the prevention of fire and explosion are to be observed if required.
Please note and ensure that even smallest quantities of the individual components and/or prepared mixtures are not allowed to reach the sewerage.
All regulations for the prevention of accidents stipulated by the employer's liability assurance association, the regulations for the prevention of accidents prescribed at the site of application and the TRGS 507 „Surface treatment in rooms and tanks", as well as the safety precautions listed on the packing (label) required by the provisions of the Hazardous Materials Ordinance shall be adhered to. The operating instructions pursuant to § 14 GefStoffV as well as the EC safety data sheets are to be complied with.

Technical data	Test specification	Unit	Parameter
Density	DIN EN ISO 1183-1	g/cm³	1.19 ± 0.02
Hardness	DIN 53505	Shore A	75 ± 5
Tensile strength *)	DIN 53504	MPa	≥ 5
Elongation at tear *)	DIN 53504	%	> 100
Peeling strength	DIN 28055-2	N/mm	≥ 4
Max. service temperature		°C	120

*): The values were determined using 4 mm thick vulcanised rubber samples.

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