

Technical Data Sheet

33.06.151E – 06/06

® VULCOFERRAN 2208

Soft rubber lining to protect steel components On-site and workshop rubber lining

Description

VULCOFERRAN 2208 is a self-vulcanizing soft rubber lining system based on bromobutyl rubber (BIIR). Depending on the requirements the layer thickness of the rubber sheet may range between 3 and 6 mm.

Typical uses

VULCOFERRAN 2208 is recommended for the protection of structural components made of steel that are subjected to chemical exposure. Its primary spectrum of application includes the lining of raw gas inlets for flue gas scrubbers in power stations and garbage incineration plants, as well as linings for reaction vessels and storage tanks that are subjected to aggressive chemical loads (nitric acid, acid mixtures, hypochlorite).

A particularly outstanding feature of this lining is its temperature resistance up to 125 °C (depending on the medium) and its suitability for vacuum-stressed environments.

Properties

VULCOFERRAN 2208 is distinguished by an outstanding chemical resistance as well as a high diffusion resistance, particularly against water vapour. Furthermore, VULCOFERRAN 2208 has the advantage of being a non-vulcanized rubber sheet, which facilitates the application to tanks having unwieldy geometrical dimensions and ensures exceptional adhesion to the steel substrate. VULCOFERRAN 2208 is bonded to the substrate with a bonding solution based on butyl rubber. Since outstanding adhesion values are achieved even under elevated service temperatures, this rubber lining system is particularly suited for application in vacuum-stressed environments.

Chemical resistance

Information on the chemical resistance properties will be furnished on request.

Substrate

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

Surface pretreatment

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 $R_z = 50 \mu\text{m}$ (Segment 2). After blasting, the steel surface must be primed.

Application

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

Note:

For workshop linings in which the sheets are vulcanised in the autoclave, the Bonding Solution 2206/L1 is used without the accelerator, for all other applications, the Bonding Solution 2206/L1 is used with the accelerator.

Mixing ratios	Parts by Weight (kg)
<u>Bonding Solution 2206/L1</u>	
Bonding Solution 2206/L1	16
Accelerator 2206/L1	0.036

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.

Pot life

VULCOFERRAN Bonding Solution 2206/L1 accelerated max. 3 weeks

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
Accelerator 2206/L1 is portioned for 16 kg units of Bonding Solution	

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. 2208 rubber sheet	1 month
VULCOF. 2208 rubber sheet at < 15°C	4months
Primer 1	12 months
Primer 2	6 months
VULCOFERRAN Bonding Solution 2206/L1, non-accelerated	12 months
Accelerator 2206/L1	24 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 all work carried out in pits and closed rooms. All vapours that are produced during processing must 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/cm ³	1.19 ± 0.02
Hardness	DIN 53505	Shore A	70 ± 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	125

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

The technical data contained herein represents the current state of our product knowledge and is intended to furnish general information regarding our products and their application spectrum. In view of the diversity and multitude of application possibilities, this data should be regarded solely as general information, which does not guarantee any specific properties and/or suitability of these products for each concrete case of application. Consequently, when ordering a product, please contact us for detailed information relative to the properties required for a specific application. Our technical service will, upon request, furnish a profile of characteristics for the concrete application without delay.

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