

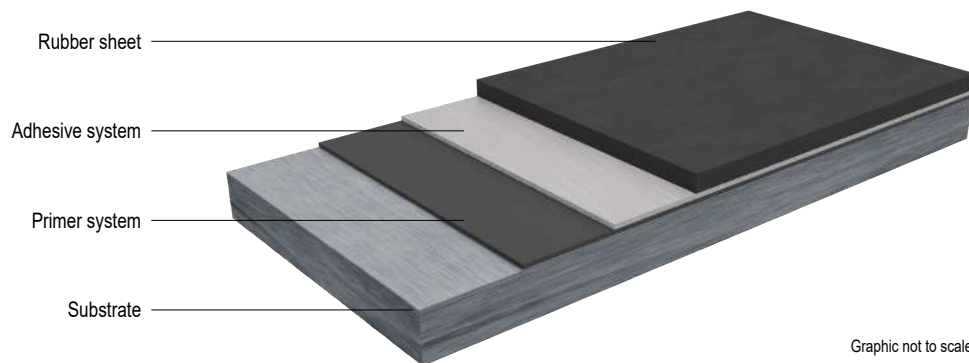
TI 151K

Technical Information Surface Protection Linings
Issue 31.01.2025

VULCOFERRAN 2206

Standard single-layer soft rubber lining for the protection of steel components

System Design



Graphic not to scale

Description and Use

Self-vulcanizing, single-layer soft rubber lining based on bromobutyl rubber (BIIR).

Depending on the requirements, the layer thickness of the rubber sheet can be 2 - 6 mm.

Please refer to the TI/VA VULCOFERRAN 2206 DIBt 150K for the design in accordance with the DIBt approval.

Rubber lining is mainly used in the following applications:

- Systems with vacuum stress
- Storage and process containers
- Phosphoric acid plants
- Flue gas cleaning plants
- And a multitude of other applications

Properties

- Rapid self-vulcanisation depending on the application
- Unvulcanized rubber sheet
 - Easy application for difficult geometries
 - High adhesive strength to the steel substrate and other substrates

Physical Data

| Physical Property | Testing Standard | Value | Unit |
|--------------------------|-------------------|-------------|-------------------|
| Temperature resistance | | 100 | °C |
| Shore A hardness | DIN ISO 7619-1 | 63 ± 5 | |
| Peeling strength | DIN EN 14879-4 | ≥ 4 | N/mm |
| Tear resistance | DIN 53504 | ≥ 3.5 | MPa |
| Elongation at tear | DIN 53504 | > 300 | % |
| Maximum surface pressure | | 2 | MPa |
| Density | DIN EN ISO 1183-1 | 1.17 ± 0.02 | g/cm ³ |

Data are average values of 4 mm thick, vulcanized rubber samples

Chemical Resistance

Information on chemical resistance is available on request.

Substrate

Requirements

| | |
|---------------------------------------|------------|
| Application temperature approx. | 10 - 30 °C |
| Dew point distance | > 3 K |
| Dew point distance from 70 % humidity | > 5 K |

During application, the substrate must be kept dry. No moisture (condensate, mist, etc.) must get onto the material.

Steel

Refer to DIN EN14879-1 as well as to STEULER-KCH-Formsheet 020 and 030.

The steel surface is blasted to near white blast cleaning. The degree of preparation Sa 2½ according to DIN EN ISO 12944-4 and the roughness grade "Medium (G)" according to DIN EN ISO 8503-1 must be achieved; roughness depth R_z = 50 - 70 µm. After blasting, the formation of new rust must be prevented by suitable measures, such as priming directly.

The condition of the substrate is documented using STEULER-KCH-Test-Record 003 (Steel) or STEULER-KCH-Test-Record 004 (Inspection of Grit Blasting Works).

Stainless steel is blasted with ferrite-free blasting material.

Grey cast iron must be tempered in the autoclave prior to blast cleaning, in order to expel any inclusions of moisture.

Packaging / Shelf Life

All components must be stored and transported dry. Unless otherwise specified, the minimum shelf life applies to a storage temperature of 20 °C. Higher temperatures reduce, lower temperatures increase the minimum shelf life. The use of refrigerated containers should be considered on a project-by-project basis, especially when components are stored at temperatures below 20 °C in order to extend their shelf life. Keep the containers tightly closed (especially after material removal).

| Component | Item Number | Package | Content | Shelf Life |
|--|----------------|----------|---------|-----------------------------|
| Vulcoferran-2206-Sheet 2 - 6 mm | 6071652200-600 | Roll | | 1 Month 3 months < 15 °C |
| Primer 1 | 5040271039 | Hobbock | 23 kg | 12 months |
| Primer 2 | 5040274001 | Hobbock | 25 kg | 12 months |
| Accelerator 2206 | 5040781175 | Can | 0.05 kg | 24 months |
| Adhesion-Solution 2206/W1 | 5040740014 | Hobbock | 22 kg | 12 months |
| KCH-Cleaner 1 | 5040016068 | Canister | 8.5 kg | 24 months |
| KCH-Diluent 5 | 5040021041 | Canister | 8 kg | 24 months |
| Release liners quality 2602/4706/125 C | 9012015 | | | |

For handling, transport and storage observe the relevant safety data sheets.

Application

Workshop

For autoclave vulcanisation, the Adhesion-Solution 2206/W1 is used without Accelerator 2206.

Adhesive Mixing Ratio

| Component | Part by weight | kg/mix |
|---------------------------|----------------|-----------------------|
| Adhesion-Solution 2206/W1 | 1.000 | 22.000 ^[1] |
| Accelerator 2206 | 0.002 | 0.050 ^[1] |
| Total | | 22.050 |

Primer 1 and Primer 2 are each applied once to the substrate. The Vulkodurit-Adhesive LS3A is then applied twice with suitable tassels or brushes. Rollers must not be used.

The rubber sheets are bonded to the substrate in accordance with DIN EN 14879-4.

Consumption

Consumption Primer 1 per order approx. 0.150 kg/m²

Consumption Primer 2 per order approx. 0.200 kg/m²

Consumption Adhesion-Solution 2206/W1 per order approx. 0.200 kg/m²

The consumption figures already include the usual losses during application.

Safety and Disposal

The following points should be observed:

- Sufficient ventilation and venting (especially in pits and tanks)
- No smoking and no fire
- Safety Data Sheets
- Observe hazard warnings and safety instructions on labels
- Wear required personal protective equipment (avoid skin contact with materials)
- Clean and protect hands with skin protection soap (no solvents!) and skin protection cream
- Wear a dust mask when grinding (e.g. for repairs)
- Operating instructions as per § 14 of GefahrstoffV (Toxic Substances Act) and TRGS 507 (Technical regulations for Hazardous Substances - Germany)
- Accident prevention regulations by the Liability Insurance Association for the Chemical Industries (Germany)
- Avoid direct contact of the materials with the flame, especially during welding work (welding beads) on site

Preferably consume residual quantities. Do not pour into a spout or dustbin! Collect separately for disposal in durable, lockable and labelled containers.

Cleaning of Equipment

Tools soiled with uncured materials can be cleaned with KCH-Cleaner 1 (primer) and KCH-Diluent 5 (adhesive). Only clean in well ventilated areas.

^[1] Pre-dosed package

All information contained in this Technical Information is based on the present state of our knowledge and practical experience. All data are approximate values for guidance only. A legally binding warranty of certain characteristics or the suitability for a certain purpose of use cannot be derived from this.

The information given in this Technical Information is our intellectual property. The Technical Information may neither be copied nor used by unauthorized parties, nor professionally distributed or otherwise made accessible to third parties without our prior consent.

This issue replaces all previous versions.