

PRODUCT INFORMATION

CHEMOLINE 3 (CR)

General properties

CHEMOLINE 3 is a black soft rubber material on the basis of chloroprene rubber (CR) that can be vulcanised in the workshop by means of hot air or steam in the autoclave. It is also self-vulcanising on site within 2 – 3 months at ambient temperature ($T > 25\text{ }^{\circ}\text{C}$).

If a considerable reduction in vulcanisation time at ambient temperature is required above mentioned material could also be vulcanised by means of hot air (7d / $+ 45\text{ }^{\circ}\text{C}$ to $+ 50\text{ }^{\circ}\text{C}$), hot water (7d / $+ 45\text{ }^{\circ}\text{C}$ to $+ 50\text{ }^{\circ}\text{C}$) or steam (1d / $+ 100\text{ }^{\circ}\text{C}$).

Under special circumstances **CHEMOLINE 3** can also be vulcanised at operating conditions (vulcanisation by means of medium). This kind of vulcanisation is only allowed after having consulted the supplier (REMA TIP TOP).

The essential properties of **CHEMOLINE 3** are its strong resistance to mineral acids, bases, aqueous phases, aromatic oils and especially its excellent resistance to media containing a high percentage of solids.

Above mentioned lining material can be used within temperatures of $- 30\text{ }^{\circ}\text{C}$ up to $+ 85\text{ }^{\circ}\text{C}$.

General Approval of German Institute for Construction Technology (DIBt)

The lining material **CHEMOLINE 3** is approved by the German Institute for Construction Technology (DIBt) as an organic surface protection for storage tanks that are subject to the German water resources law (WHG 19).

CERTIFICATE No.: Z-59.22-166

Fields of application

Due to its resistance to numerous chemicals **CHEMOLINE 3** is worldwide used in the chemical, chlorine and steel industry, in mineral processing installations as well as in the field of environmental protection. Here, structural steel parts subject to high chemical, mechanical and thermal stress, such as storage bins, filter cells, mixing tanks, crystallizers and pipe lines can be protected from corrosion by using the **CHEMOLINE 3** lining material.

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Shelf life

CHEMOLINE 3 lining material can be stored without any loss of quality for a period of up to 1 month at a maximum temperature of + 25 °C.

Under cool storage conditions (at a temperature of + 5 °C) the material can be stored for a period of 6 months. The conditions specified within standard DIN 7716 must be observed.

Application on steel

The lining material **CHEMOLINE 3** is bonded onto steel by using the CFC-free adhesive system **METAL PRIMER PR 304 / CEMENT BC 3004**. Alternatively the **METAL PRIMER PR 300** in combination with **CEMENT BC 3000** can be used.

The standards EN 14879-1, EN 14789-4 and EN ISO 12944-4 have to be observed.

Spark test

The spark test (Holiday Test) is carried out according to the EN 14879-4. An earthed high-voltage spark tester Elmed-Isotest II RT or alternatively the Wegener AC Spark Tester WEG 20/22 must be used.

The test voltage has to be set as follows:

Lining material	Test voltage
CHEMOLINE 3 un-vulcanised	2,5 KV / mm (max. 12,5 KV)
CHEMOLINE 3 vulcanised	2,5 KV / mm (max. 12,5 KV)

Mechanical - Physical Characteristics

Properties	Units	Standard	Value
Polymer		ISO 1629	CR
Tensile strength determined on:	[MPa] S2 Bar	DIN 53504	≥ 8 ¹⁾
Elongation at break determined on:	[%] S2 Bar	DIN 53504	≥ 360 ¹⁾
Hardness	[Shore A]	DIN 53505	55 ± 5 ¹⁾ 55 ± 5 ²⁾ 60 ± 5 ³⁾
Rebound resilience	[%]	DIN 53512	≥ 25
Abrasion	[mm ³]	ISO 4649	≤ 200
Density	[g/cm ³]	EN ISO 1183-1	1.44 ± 0.02
Bonding strength on steel	[N/mm]	ISO 813	≥ 4
Surface resistivity	[Ω]	IEC 60093	$\geq 10^9$
Test voltage	[KV/mm]	EN 14879-4	2.5
Operating temperature	[° C]		≤ 85
Thermal conductivity	[W/mk]	DIN 51046	0.32
Water vapour permeability (thickness of sheet: 4 mm)	[g/m ² .d]	5312DIN	0.25

¹⁾ Press vulcanisation

²⁾ Vulcanisation without pressure at ambient temperature [T = 25 °C \pm 2 °C]

³⁾ Vulcanisation in the autoclave

The information given above is based on approved test results and represents statistical product data, which however does not necessarily guarantee the specific properties of the product.

We reserve the right to changes to technical specifications without prior notice, provided these ensure technical improvement without major modifications to the product itself.

Basic Program *CHEMOLINE 3*

Availability and dimensions

Rubber sheets with PE separating sheets on hard core freely suspended in cardboard boxes.

Length [mm]	Width [mm]	Thickness [mm]	Quantity [m.]	Product-No.
10.000	1.100	2	11	253 3 28
10.000	1.100	3	11	257 3 28
10.000	1.100	4	11	261 3 28
10.000	1.100	5	11	265 3 28
10.000	1.100	6	11	269 3 28

This data sheet is for informational purposes only. All data provided herein is based on in-depth research and testing, however no liability whatsoever can be assumed. Since we are constantly endeavouring to up-date and improve our products, we recommend noting the index and issue date indicated on this data sheet and to inquire as to whether any properties have changed in the interim. This Product Information Sheet replaces all prior issues. Please contact our Technical Consultant for detailed information in case of ambiguities.