PRODUCT INFORMATION

CHEMOLINE 5 B (BIIR/CR)

General Properties

CHEMOLINE 5 B is a black soft rubber material based on bromobutyl / chloroprene rubber (polymer blend based on BIIR/CR) that can be vulcanised not only in the workshop by means of hot air or in the autoclave with steam alternatively but is also self-vulcanizing on site due to its catalytic acceleration at ambient temperature (T ≥ 25 °C).

If a considerable reduction in vulcanisation time at ambient temperature is required, above mentioned material can also be vulcanised by means of hot air (7 days / 45 - 50 °C), hot water (7days / 45 - 50 °C) or steam (1day / 100 °C).

Under special circumstances ***CHEMOLINE 5 B*** 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 5 B*** are its strong resistance to mineral acids, bases, aqueous phases, and especially its excellent diffusion resistance to gases like sulphur dioxide, nitrogen oxide and saturated water vapour.

Above mentioned lining material can be used within temperatures of -30° up to +90° C.

Fields of application

Due to its resistance to numerous chemicals the lining material ***CHEMOLINE 5 B*** is used world wide 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 FGD plants can be protected from corrosion by using the ***CHEMOLINE 5 B*** lining material.

Shelf life

The ***CHEMOLINE 5 B*** lining material can be stored without any loss of quality up to maximum of 1 month at maximum temperatures of + 25 °C. Under cool storing conditions (at a temperature of + 5 °C) above mentioned lining material can be stored up to 3 months. The DIN standard 7716 has to be observed.

Application on Steel

a) The lining material ***CHEMOLINE 5 B*** is bonded onto steel by using the two-coat TIP TOP bonding system ***PRIMER PR 500-1*** / ***PRIMER S 500-2*** in combination with ***CEMENT TC 5000***. The standards EN 14879-1, EN 14879-4 and EN ISO 12944-4 have to be observed.

Above mentioned bonding system requires a subsequent thermal treatment, i.e. the lining material has be vulcanised 7 days at 45°C by hot air or hot water.

b) In case that a thermal treatment is not possible the TIP TOP cold bonding system ***METAL PRIMER PR 304*** in combination with ***CEMENT BC 3004*** or alternatively ***METAL PRIMER PR 300*** with ***CEMENT BC 3000*** can be used. The service temperature is limited to 85 °C when applied with the aforementioned cold bonding systems. Chemical resistance limitations may apply, so please consult REMA TIP TOP when in doubt.

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 5 B un-vulcanised	2,5 KV/mm (max. 12,5 KV)
CHEMOLINE 5 B vulcanised	2,5 KV/mm (max. 12,5 KV)

Mechanical - Physical Characteristics

Properties	Units	Standard	Value
Polymer		ISO 1629	BIIR/CR
Tensile strength determined on:	[MPa] S2 Bar	DIN 53504	≥ 5 [1)]
Elongation at break determined on:	[%] S2 Bar	DIN 53504	≥ 250 [1)]
Hardness	[Shore A]	DIN 53505	55 ± 5 [1)]
Rebound resilience	[%]	DIN 53512	≥ 10
Abrasion	[mm^3]	DIN 53516	≤ 225
Density	[g/cm^3]	EN ISO 1183-1	1.32 ± 0,02
Bonding strength on steel	[N/mm]	ISO 813	≥ 4
Surface resistance	[Ω]	DIN IEC 60093	≥ 10^8
Test voltage	[KV/mm]	EN 14879-4	2.5
Permanent operating temperature	[° C]		≤ 90
Thermal conductivity	[W/mK]	DIN 51046	0.28
Water vapour permeability (Thickness of sheet 4 mm)	[g / m² • d]	DIN 53122	0.1

1) Vulcanisation in the press

The information given above is based on approved test results and represents statistical product data; this however does not necessarily guarantee the specific properties of the product. We reserve the right to changes to technical specifications without prior notice, provided they ensure technical improvement without major modifications of the product itself.

Basic Program *CHEMOLINE 5 B*

Availability

Rubber sheets covered with PE-foil, wound on hard paper core suspended freely in pasteboard box.

Length [mm]	Width [mm]	Thickness [mm]	Order Quantity [m²]	Product No.
10.000	1.100	2	11	528 3334
10.000	1.100	3	11	528 3372
10.000	1.100	4	11	528 3413
10.000	1.100	5	11	528 3451
10.000	1.100	6	11	528 3499

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