PRODUCT INFORMATION

CHEMOLINE 12 (CIIR)

General properties

CHEMOLINE 12 is a black soft rubber material on the basis of chlorobutyl rubber (CIIR), which can be vulcanised in the workshop either by hot air or steam in the autoclave.

The outstanding properties of ***CHEMOLINE 12*** are its strong chemical resistance to mineral acids, bases, polar solvents, aqueous phases and its excellent diffusion resistance to gases such as sulphur dioxide, nitrogen dioxide and saturated water vapour. ***CHEMOLINE 12*** has been developed with particular consideration to its insulation resistances for the use in instruments such as flow meters, where drinking water approvals are essential.

CHEMOLINE 12 may be used in a temperature range from – 40 °C to + 70 °C.

Approvals

CHEMOLINE 12 is to be used especially where lining materials with drinking water approvals are required. ***CHEMOLINE 12*** has drinking water approvals from the following authorities:

- German KTW - Drinking Water Approval Category B up to 60 °C
- ***CHEMOLINE 12*** conforms to the DVGW-Worksheet W 270
- KSW – Swimming & Bathing Water Approval
- BS 6920 – Tests Approval on the Effect of Water Quality → WRAS-conforms to the requirements of Water Regulations Advisory Scheme
- ***CHEMOLINE 12*** conforms to the Regulations of CFR 21 § 177.2600 the Food and Drug Administration (FDA) for liquid foods

Fields of application

Due to its resistance to numerous chemicals ***CHEMOLINE 12*** is used in the chemical industry and especially in water treatment plants. Here, structural steel parts subject to high chemical, mechanical and thermal stress, such as storage vessels, filter cells, mixing tanks, flow meters can be protected from corrosion by using the ***CHEMOLINE 12*** lining material.

Shelf life

CHEMOLINE 12 can be stored without any loss of quality for a period of up to 6 months at a maximum temperature of + 25 °C. Under refrigerated storage conditions (at a temperature of + 5 °C) the material can be stored for a period of 12 months. The conditions specified within DIN standard 7716 must be observed.

Application on Steel

CHEMOLINE 12 is bonded on steel by means of TIP TOP adhesive 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.

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 12 un-vulcanised	4 KV/mm (max. 20 KV)
CHEMOLINE 12 vulcanised	4 KV/mm (max. 20 KV)

Mechanical - Physical Characteristics

Properties	Units	Standard	Value
Polymer		ISO 1629	CIIR
Density	[g / cm³]	EN ISO 1183-1	1,24 ± 0.02
Tensile strength determined using:	[MPa] S2 bar	DIN 53504	≥ 7 [2)]
Elongation at break determined using:	[%] S2 bar	DIN 53504	≥ 550 [2)]
Hardness	[Shore A]	DIN 53505	50 ± 5 [1)2)]
Rebound resilience	[%]	DIN 53512	≥ 8
Abrasion	[mm³]	ISO 4649	≤ 300
Modulus of elasticity (Young's)	[N/mm]	DIN 53507	≥ 8
Bonding strength to steel	[N/mm]	ISO 813	≥ 4
Deformation resistance 70h/70°C in hot air	[%]	DIN 53517	23
Deformation resistance 28d/70°C in water	[%]	DIN 53517	35
Test voltage	[KV/mm]	EN 14879-4	4
Surface resistivity	[Ω]	DIN IEC 60093	10^{11}
Volume resistivity	[Ω x cm]	DIN IEC 60093	10^{11}
Operating temperature	[°C]		≤ 70

1) Vulcanisation in an Autoclave [2)] Vulcanisation in the press

The information given above is based on single measurements resulting in the standard values, which identify the product without necessarily guaranteeing 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 12*

Availability and dimensions

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

Length [mm]	Width [mm]	Thickness [mm]	Quantity [m²]	Product-No.
10.000	1.100	2	11	528 2250
10.000	1.100	3	11	528 2260
10.000	1.100	4	11	528 2270
10.000	1.100	5	11	528 2280
10.000	1.100	6	11	528 2290

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