PRODUCT INFORMATION

CHEMONIT 35 (IR/SBR)

General properties

CHEMONIT 35 is a charcoal-grey graphite filled rubber material on the basis of polyisoprene (IR) and styrene butadiene rubber (SBR), which can be vulcanised on site by means of hot water (T = 95 °C) or steam or alternatively in an autoclave by means of hot air or steam.

The essential properties of the hard rubber material ***CHEMONIT 35*** are its strong resistance against mineral acids, bases, aqueous phases.

The above mentioned lining material can be used from - 15 °C to + 100 °C.

General Approval of German Institute for Construction Technology (DIBt)

The lining material ***CHEMONIT 35*** 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 I)

CERTIFICATE-No.: Z-59.22-322

Fields of application

Due to its resistance to numerous inorganic and organic chemicals, the lining material ***CHEMONIT 35*** is used as surface protection in the chemical, chlorine, steel and electroplating industry, in electroplating 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, electroplating bathes, crystallisers, centrifuges and pipe spools can be protected from corrosion by the ***CHEMONIT 35*** lining material. ***CHEMONIT 35*** is especially suitable for the lining of HCl rail road tankers and for HCl storage bins.

Shelf life

CHEMONIT 35 lining material can be stored without any loss of quality for a period of up to 2 months at a maximum temperature of 25 °C.

Under cool storage conditions (at a temperature of + 5 °C) ***CHEMONIT 35*** can be stored for a period of 6 months.

The conditions specified within DIN standard 7716 must be observed.

Application on steel

If the vulcanisation occurs with hot water, hot air or steam, it is required to use the 2-Layer Primer System ***PRIMER HG 1*** / ***PRIMER HG 2*** and the ***TIP TOP ADHESIVE SOLUTION SH3A***. The ***PARA-ADHESIVE SOLUTION*** can be used for ***CHEMONIT 35*** rubber sheets.

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

Vulcanisation

If the vulcanisation takes place by hot water or steam on site (about 95 °C), the necessary vulcanisation time is approx. 100 to 120 hours.

CHEMONIT 35 is vulcanised in the autoclave at a temperature of approx. 110 °C at a pressure of 4 bars**.** The necessary vulcanising time depends on the wall thickness of the steel parts as well of the rubber lining. As standard value, including the heating-up and cooling-down time, approx. 8 - 10 hours can be taken.

Spark test

The spark test (Holiday Test) is carried out according to EN 14789-4. An earthed high-voltage spark tester Elmed-Isotest II RT or alternatively the Wegener Spark Tester WEG 20/22 must be used.

The test voltage has to be set as follows:

Lining material	Test voltage
CHEMONIT 35 un-vulcanised	3 KV / mm (max. 20 KV)
CHEMONIT 35 vulcanised	3 KV / mm (max. 20 KV)

Mechanical - Physical Characteristics

Properties	Unit	Standard	Value
Polymer		ISO 1629	IR / SBR
Density raw material	[g/cm³]	Elatest	1.24 ± 0.02
Density of cured material	[g/cm³]	DIN 53479 ASTM D 297	1.29 ± 0.02
Hardness	[Shore D]	DIN 53505 ASTM D 2240	80 ± 5 1) 78 ± 5 2) 65 ± 5 3) 70 ± 5 4)
Tensile strength determined on:	[MPa] S1	EN ISO 527 ASTM D 638	≥ 30 1)
Elongation at break determined on:	[%] S1	EN ISO 527 ASTM D 638	≥ 2 1)
Youngs modules	[MPa]	EN ISO 527 ASTM D 638	≥ 2000 1)
Bending strength	[MPa]	EN ISO 178 ASTM D 790	≥ 40 1)
Bonding strength to steel	[MPa]	EN ISO 4624 ASTM D 429	≥ 6
Volume resistivity	[Ω . cm]	DIN IEC 60093	10^{14}
Linear coefficient of expansion	[K^{-1}]	DIN 53752	50 x 10^{-6}
Test voltage	[KV/mm]	EN 14879-4	3
Operating temperature	[C°]		≤ 100

1) Press vulcanisation (2^h / 145 °C)
2) Vulcanised in autoclave [on not ground substrates]
3) Vulcanised in hot water [on not-ground substrates]
4) Vulcanised in open steam [on not-ground substrates]

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 *CHEMONIT 35*

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	529 6785
10.000	1.100	3	> 11	529 6826
10.000	1.100	4	> 11	529 6864
10.000	1.100	5	> 11	529 6905
10.000	1.100	6	> 11	529 6943

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