

# PRODUCT INFORMATION

## **CHEMOLINE RT (BIIR)**

### **General properties**

**CHEMOLINE RT** is a black soft rubber material on the basis of co-polymerised bromobutyl rubber (BIIR) that can be vulcanised in the workshop by means of hot air or steam in the autoclave alternatively but is also vulcanising without pressure at temperature  $\geq 60^{\circ}\text{C}$ .

The essential properties of **CHEMOLINE RT** are its strong resistance to mineral acids (including hydrofluoric acid), bases, aqueous phases and especially its excellent resistance to oxidising media like sodium hypochlorite or chromic acid. In addition the resistance to thermal shocks as well as the UV and ozone resistances are mentionable.

Above mentioned lining material can be used within temperatures of  $-40^{\circ}\text{C}$  up to maximum  $+120^{\circ}\text{C}$ .

### **Fields of application**

Due to its resistance to numerous chemicals **CHEMOLINE RT** is worldwide used as surface protection in the chemical, chlorine and steel industry as well as in electroplating. Here, structural steel parts subject to high chemical, mechanical and thermal stress, such as storage tanks, filter cells, mixing tanks, electroplating baths and chloralkali process plants can be protected from corrosion by using the **CHEMOLINE RT** rubber lining material.

Due to its diversity in resistance to chemicals **CHEMOLINE RT** is especially used for lining of storage and transportation tanks for bleaching lye (lining of tankers). Additionally the use when transporting changing goods (hydrochloric acid, caustic soda solution, bleaching liquor) as well as mixed and/or used acids is emphasised.

**CHEMOLINE RT** is resistant against sodium hypochlorite with increased content of active chlorine.

### **Shelf life**

**CHEMOLINE RT** can be stored without any loss of quality for a period of up to 3 months at a max. temperature of  $25^{\circ}\text{C}$ .

At a temperature of  $+5^{\circ}\text{C}$  the material can be stored for a period of 6 months. The conditions specified within DIN 7716 must be observed.

### **Application on steel**

**CHEMOLINE RT** is bonded onto steel by using the two-coat TIP TOP bonding system **Primer HG 1 / HG 2** in combination with **CEMENT TC 5002**. The adhesive **CEMENT TC 5002** is thixotropic and must be stirred well prior to use.

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 standard 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
<b>CHEMOLINE RT</b> un-vulcanised	4 KV / mm (max. 20 KV)
<b>CHEMOLINE RT</b> vulcanised	4 KV / mm (max. 20 KV)

## Mechanical - Physical Characteristics

Properties	Units	Standard	Value
Polymer		ISO 1629	BIIR
Tensile strength determined on:	[MPa] S2 Bar	DIN 53504 ASTM D 638	$\geq 8$ <sup>1)</sup>
Elongation at break determined on:	[%] S2 Bar	DIN 53504 ASTM D 638	$\geq 250$ <sup>1)</sup>
Hardness	[Shore A]	DIN 53505 ASTM D 2240	$60 \pm 5$ <sup>1)</sup> $65 \pm 5$ <sup>2)</sup>
Rebound resilience	[%]	DIN 53512	$\geq 8$
Density	[g/cm <sup>3</sup> ]	EN ISO 1183-1	$1.22 \pm 0.02$
Bonding strength on steel	[N/mm]	ISO 813	$\geq 4$
Surface resistivity	[ $\Omega$ ]	DIN IEC 60093	$9 \times 10^{10}$
Volume resistivity	[ $\Omega \cdot \text{cm}$ ]	DIN IEC 60093	$7 \times 10^{10}$
Test voltage	[KV/mm]	EN 14879-4	4
Operating temperature	[° C]		$\leq 120$
Abrasion	[mm <sup>3</sup> ]	ISO 4649-2006	$\leq 250$

<sup>1)</sup> Press vulcanisation

<sup>2)</sup> 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 RT*

### 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 <sup>2</sup> ]	Product-No.
10.000	1.100	2	11	528 4000
10.000	1.100	3	11	528 4010
10.000	1.100	4	11	528 4020
10.000	1.100	5	11	528 4030
10.000	1.100	6	11	528 4040

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.

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