

### //ONE BRAND //ONE SOURCE //ONE SYSTEM



# Corrosion Protection Lining

Our complete range of Corrosion Protection Lining products.

## Corrosion Protection Lining

CHEMOLINE Soft rubber lining.	4
CHEMONIT Hard rubber lining.	13
Questionnaire	16



### CORROSION PROTECTION LINING CHEMOLINE 3CN - Soft rubber lining

### CHEMOLINE 3CN – Soft rubber lining

CHEMOLINE 3 CN is an already vulcanised black soft rubber lining based on Chloroprene rubber (CR), which is equipped with an easy to bond, reactive bonding layer. CHEMOLINE 3 CN can be loaded directly without further vulcanisation.

#### Properties

- Strong chemical resistance against mineral acids, bases, and aromatic oils
- Outstanding resistance against media containing a high percentage of solids
- Application onto steel and concrete components
- On site rubber lining

#### Area of application

- · CHEMOLINE 3 CN is used mainly for on-site rubber linings of steel and concrete components which are exposed to abrasive conditions and chemical loads.
- The field of applications are chemical plants, chlorine and steel industries, mineral processing plants and environmental protection plants. • Some typical examples of applications
- are the lining of storage tanks, agitated tanks and pipelines.



#### Application process

CHEMOLINE 3CN 0 - Steel, blasted 1 - PRIMER PR 304 2 - CEMENT BC 3004 3 - CHEMOLINE 3CN

### **REMA PERFORMANCEline CHEMO 4CN** – Chemical resistant premium lining

REMA PERFORMANCEline CHEMO 4CN is a chemical resistant soft-rubber lining material, based on bromobutyl rubber, suitable for steel- and concrete components which are exposed to high chemical loads. This new product is equipped with a smooth and glossy surface and has an improved UV resistance. The smooth surface reduces build up and caking problems during the whole process. It provides outstanding diffusion resistance, strong chemical resistance and a long service life accordingly.

#### Properties

- Simple and fast lining application
- Homogenous / uniform curing of the sheet gives it a longer life span
- Improved UV resistance
- The glossy surface reduces the chances
- of material build-up/depositing
- Strong chemical resistance
- Versatility of application surfaces like • concrete, steel, stainless steel

### Area of application

- steel and concrete. Chemical, chlorine, fertilizer, deionized water tanks in nuclear plants, ore processing up to environmental
- protection. Linings of bearing & stirrers, crystallization and condensation reactors, thickeners, pipelines and

### **REMA PERFORMANCEline CHEMO 4CN**

Specifications	
Polymer basis	BIIR
Specific Weight	1.25 g/cm3
Hardness	55 Shore A
Colour	Black
Abrasion	≤ 320 mm3
Max Surface Pressure	2 N/mm2
Surface Resistance	<b>Ω</b> ≥ 1012
Peel strength to Steel	≥4N/mm
Water Vapour Permeability	0.04g/m2 d

Ref. No.	Designation	Dimension
521 5000	REMA PERFORMANCEline CHEMO 4CN	3 mm x 110
521 5005	REMA PERFORMANCEline CHEMO 4CN	4 mm x 110
521 5010	REMA PERFORMANCEline CHEMO 4CN	5 mm x 110
521 5015	REMA PERFORMANCEline CHEMO 4CN	6 mm x 110

#### **CHEMOLINE 3CN**

#### Specifications

·····	****	•••••••••••••••••••••••••••••••••••••••
Polymer basis	CR	ISO 1629
Abrasion	≤ 200 mm3*	ISO 4649 (ASTM D5963)
Density	1.45 ± 0.02 g/cm3	EN ISO 1183-1
Hardness	60 ± 7 Shore A	ISO 7619-1 (ASTM D2240)
Max Surface Pressure	2 N/mm2	
Elongation at Break	≥ 300%***	DIN 53504 (ASTM D412)
Tensile Strength	≥ 6 N/mm2***	DIN 53504 (ASTM D412)
Impact Resillience	≥ 25%	DIN 53512 (ASTM D1054)
Peel Strength to Steel	≥ 4 N/mm	ISO 813
Thermal Conductivity	0.32 W/m K	DIN 51046
Water Vapour Permeability	0.25 g/m2 d**	DIN 53122
Max Continuous Operating Temp	+85 ℃	
Temperature Range	-30 up to +85 °C	

Ref. No.	Designation	Dimensions
528 7842	CHEMOLINE 3/CN	3 mm x 1100 mm x 10000mm
528 7859	CHEMOLINE 3/CN	4 mm x 1100 mm x 10000mm
528 7866	CHEMOLINE 3/CN	5 mm x 1100 mm x 10000mm
528 7873	CHEMOLINE 3/CN	6 mm x 1100 mm x 10000mm
••••••	•••••••••••••••••••••••••••••••••••••••	

\* Press vulcanisation \*\* Autoclave vulcanisation \*\*\* 4mm rubber

### CORROSION PROTECTION LINING REMA PERFORMANCEline CHEMO 4CN – Chemical resistant premium lining



process tanks flue gas desulphurisation.



#### Application process

#### CHEMOLINE 4CN

0 - Steel, blasted 1 - PRIMER PR 304 2 - CEMENT BC 3004 3 - CHEMOLINE 4CN

DIN ISO 1629
DIN EN ISO 1183-1
DIN ISO 7619-1
DIN ISO 4649
DIN IEC 60093
ISO 813
DIN 53122

#### าร

)0 mm x 10000mm )0 mm x 10000mm 00 mm x 10000mm 00 mm x 10000mm

### CORROSION PROTECTION LINING CHEMOLINE 4A – Soft rubber lining

### CHEMOLINE 4A – Soft rubber lining

CHEMOLINE 4 A is a black soft rubber lining based on Bromobutyl rubber (BIIR).

Area of application

chemical loads.

• CHEMOLINE 4 A is used mainly for

plants, chlorine and steel industries,

processing plants, power plants and

Some typical examples of applications

agitated tanks, crystallization and

condensation reactors and pipelines in

flue gas desulphurisation (FGD) plants.

environmental protection plants.

are the lining of storage tanks,

fertilizer manufacturing plants,

phosphoric acid plants, mineral

#### Properties

- Strong chemical resistance against mineral acids, bases, polar solvents and salt solutions
- Outstanding diffusion resistance to sulphur dioxide and saturated water vapour
- High thermal stability (max. +110°C)
- Application onto steel components
- Workshop rubber lining



## Application process

CHEMOLINE 4A 0 - Steel, blasted 1 - PRIMER PR 500-1 2 - PRIMER S 500-2 3 - ADHESIVE TC 5000 4 - CHEMOLINE 4A

### **CHEMOLINE 4A**

#### Specifications

Polymer basis	BIIR	ISO 1629
Abrasion	≤ 320 mm3*	ISO 4649 (ASTM D5963)
Density	1.25 ± 0.02 g/cm3	EN ISO 1183-1
Hardness	55 ± 5 Shore A	ISO 7619-1 (ASTM D2240)
Max Surface Pressure	2 N/mm2	
Elongation at Break	≤ 600***	DIN 53504 (ASTM D412)
Tensile Strength	≥ 5 N/mm2***	DIN 53504 (ASTM D412)
Impact Resillience	≥ 6%	DIN 53512 (ASTM D1054)
Peel Strength to Steel	≥ 4 N/mm	ISO 813
Thermal Conductivity	0.33 W/m K	DIN 51046
Water Vapour Permeability	0.04 g/m2 d**	DIN 53122
Max Continuous Operating Temp	+110 ℃	
Temperature Range	-40 up to +110 °C	

Ref. No.	Designation	Dimensions
528 2720	CHEMOLINE 4A	2 mm x 1100 mm x 10000mm
528 2768	CHEMOLINE 4A	3 mm x 1100 mm x 10000mm
528 2768	CHEMULINE 4A	3 mm x 1100 mm x 10000mm

\* Press vulcanisation \*\* Autoclave vulcanisation \*\*\* 4mm rubber

### CORROSION PROTECTION LINING CHEMOLINE 4B – Soft rubber lining

### CHEMOLINE 4B – Soft rubber lining

CHEMOLINE 4 B is a self-vulcanizing black rubber lining based on Bromobutyl rubber (BIIR).

#### Properties

- Strong chemical resistance against mineral acids, bases, polar solvents and salt solutions
- Outstanding diffusion resistance to sulphur dioxide and saturated water vapour
- High thermal stability (max. +110°C)
- Application onto steel components
- On site rubber lining

#### Area of application

- site and workshop rubber linings of chemical loads.
- plants, chlorine and steel industries, fertilizer manufacturing plants, phosphoric acid plants, mineral processing plants, power plants and
- (FGD) plants such as absorbers and more.

### **CHEMOLINE 4B**

#### Specifications

Polymer basis	BIIR
Abrasion	≤ 320 mm3*
Density	1.25 ± 0.02 g/cm3
Hardness	55 ± 5 / 60 ± 5 Shore A
Elongation at Break	≥ 600%***
Tensile Strength	≥ 5 N/mm2***
Impact Resillience	≥6%*
Peel Strength to Steel	≥4N/mm
Thermal Conductivity	0.33 W/m K
Water Vapour Permeability	0.04 g/m2 d***
Max Continuous Operating Temp	+110 °C
Temperature Range	-40 up to +110 °C

Ref. No.	Designation	Dimensions
528 2933	CHEMOLINE 4B	2 mm x 1100 mm x 10000mm
528 2971	CHEMOLINE 4B	3 mm x 1100 mm x 10000mm
528 3011	CHEMOLINE 4B	4 mm x 1100 mm x 10000mm
528 3059	CHEMOLINE 4B	5 mm x 1100 mm x 10000mm
528 3059	CHEMOLINE 4B	6 mm x 1100 mm x 10000mm

• CHEMOLINE 4 B is used mainly for onsteel components which are exposed to

• The field of applications are chemical environmental protection plants. • Some typical examples of applications are the lining of storage tanks, agitated tanks, thickeners, as well as structural components of flue gas desulphurisation



#### Application process

#### CHEMOLINE 4B

0 - Steel, blasted 1 - PRIMER PR 500-1 2 - PRIMER S 500-2 3 - ADHESIVE TC 5000 4 - CHEMOLINE 4B

	ISO 1629
	ISO 4649 (ASTM D5963)
	EN ISO 1183-1
4****	ISO 7619-1 (ASTM D2240)
	DIN 53504 (ASTM D412)
	DIN 53504 (ASTM D412)
	DIN 53512 (ASTM D1054)
	ISO 813
	DIN 51046
	DIN 53122
	-
	* Press vulcanisation
۱m ****	* After pressure less vulcanisation (sample
ım	plates)
ım	**** After complete vulcanisation under
ım	operating conditions

### CORROSION PROTECTION LINING CHEMOLINE 4CN – Soft rubber lining

### CHEMOLINE 4CN – Soft rubber lining

CHEMOLINE 4 CN is an already vulcanised black soft rubber lining based on Bromobutyl rubber (BIIR), which is equipped with an easy to bond, reactive bonding layer. CHEMOLINE 4 CN can be loaded directly without further vulcanisation.

Area of application

CHEMOLINE 4 CN is used mainly for

on-site rubber linings of steel and

• The field of applications are chemical

plants, chlorine and steel industries,

fertilizer manufacturing plants, power

plants, mineral processing plants and

applications are the lining of storage

tanks, agitated tanks, crystallization

thickeners, pipe spools and more.

environmental protection plants.

concrete components which are

exposed to chemical loads.

• Some typical examples of

and condensation reactors,

#### Properties

- Strong chemical resistance against mineral acids, bases, polar solvents and salt solutions
- Outstanding diffusion resistance to sulphur dioxide and saturated water vapour
- Application onto steel and concrete components
- Can be exposed to the operation conditions right after the application
   On site method links a
- On site rubber lining

### **CHEMOLINE 4CN**

#### Specifications

Polymer basis	BIIR	ISO 1629
Abrasion	≤ 320 mm3*	ISO 4649 (ASTM D5963)
Density	1.25 ± 0.02 g/cm3	EN ISO 1183-1
Hardness	55 ± 5 Shore A**	ISO 7619-1 (ASTM D2240)
Max Surface Pressure	2 N/mm2	
Elongation at Break	≥ 370 %***	DIN 53504 (ASTM D412)
Tensile Strength	≥ 4 N/mm2***	DIN 53504 (ASTM D412)
Peel Strength to Steel	≥ 4 N/mm	ISO 813
Thermal Conductivity	0.32 W/m K	DIN 51046
Water Vapour Permeability	0.04 g/m2 d***	DIN 53122
Max Continuous Operating Temp	+90 °C	
Temperature Range	-40 up to +90 °C	

Ref. No.         Designation         Dimensions           528 7897         CHEMOLINE 4CN         3 mm x 1100 mm x 10000mm           528 7907         CHEMOLINE 4CN         4 mm x 1100 mm x 10000mm           528 7914         CHEMOLINE 4CN         5 mm x 1100 mm x 10000mm			
528 7897         CHEMOLINE 4CN         3 mm x 1100 mm x 10000mm           528 7907         CHEMOLINE 4CN         4 mm x 1100 mm x 10000mm           528 7914         CHEMOLINE 4CN         5 mm x 1100 mm x 10000mm	Ref. No.	Designation	Dimensions
528 7907         CHEMOLINE 4CN         4 mm x 1100 mm x 10000mm           528 7914         CHEMOLINE 4CN         5 mm x 1100 mm x 10000mm	528 7897	CHEMOLINE 4CN	3 mm x 1100 mm x 10000mm
528 7914         CHEMOLINE 4CN         5 mm x 1100 mm x 10000mm	528 7907	CHEMOLINE 4CN	4 mm x 1100 mm x 10000mm
	528 7914	CHEMOLINE 4CN	5 mm x 1100 mm x 10000mm
528 7921         CHEMOLINE 4CN         6 mm x 1100 mm x 10000mm	528 7921	CHEMOLINE 4CN	6 mm x 1100 mm x 10000mm

\* Press vulcanisation \*\* Autoclave vulcanisation \*\*\* 4mm rubber

### CORROSION PROTECTION LINING CHEMOLINE 12CN FDA – Soft rubber lining

### CHEMOLINE 12CN FDA – Soft rubber lining

CHEMOLINE 12 CN is an already vulcanised black soft rubber lining based on Chlorobutyl rubber (CIIR), which is equipped with an easy to bond, reactive bonding layer. CHEMOLINE 12 CN can be loaded directly without further vulcanisation.

Area of application

components.

chemical industry.

#### Properties

- Strong resistance against mineral acids, bases and polar solvents
- Excellent diffusion resistance against gases like sulphur dioxide, nitrogen oxides, and saturated water vapour
- High insulation resistance
- Application onto steel and concrete components
- Can be exposed to the operation conditions right after the application
  On site rubber lining
- Certificate of suitability for aqueous food in accordance with the guidelines CFR 21§ 177.2600 of the Food and Drug Administration (FDA)

### CHEMOLINE 12CN FDA

#### Specifications CIIR Polymer basis ≤ 300 mm3\* Abrasion Density 1.08 ± 0.02 g/cm3 Hardness 50 ± 5 Shore A\*\* Max. Surface Pressure 2 N/mm2 Surface Resistance $\geq$ 10 $\Omega$ Elongation at Break ≥150 %\*\*\* Tensile Strength ≥ 6 N/mm2\*\*\* Impact Resillience ≥6% Peel Strength to Steel ≥4N/mm Max Continuous Operating Temp +70 °C -40 up to +70 °C Temperature Range

Ref. No.	Designation	Dimensions
528 2300	CHEMOLINE 12CN	3 mm x 1100 mm x 10000m
528 2310	CHEMOLINE 12CN	4 mm x 1100 mm x 10000m
528 2320	CHEMOLINE 12CN	5 mm x 1100 mm x 10000m
528 2330	CHEMOLINE 12CN	6 mm x 1100 mm x 10000m



#### Application process

#### CHEMOLINE 4CN

0 - Steel, blasted 1 - PRIMER PR 304 2 - CEMENT BC 3004 3 - CHEMOLINE 4CN  CHEMOLINE 12 CN is developed specifically for the on-site rubber lining of chemically loaded steel or concrete

• The field of applications are mainly water treatment facilities and the

 Some typical examples of applications are the linings of storage tanks and agitated tanks, basins, pipe spools as well as various vessels in the phosphoric acid industry.



#### Application process

#### CHEMOLINE 12CN FDA

0 - Concrete, blasted 1 - REMAFIX C (Smoothing coat, conductive) 2 - PRIMER PR 304 3 - CEMENT BC 3004 4 - CHEMOLINE 12 CN

	ISO 1629
	ISO 4649 (ASTM D5963)
	EN ISO 1183-1
	ISO 7619-1 (ASTM D2240)
	DIN IEC 60093
	DIN 53504 (ASTM D412)
	DIN 53504 (ASTM D412)
	DIN 53512 (ASTM D1054)
	ISO 813
	-
im 	* Press vulcanisation
	** Autoclave vulcanisation

\*\* Autoclave vulcanisation \*\*\* 4mm rubber

PRODUCT PORTFOLIO

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### CORROSION PROTECTION LINING CHEMOLINE 13 – Soft rubber lining

### CHEMOLINE 13 – Soft rubber lining

CHEMOLINE 13 is a black soft rubber lining based on Bromobutyl rubber (BIIR). CHEMOLINE 13 shows excellent chemical resistance against concentrated hydrochloric acid and hypochlorite.

#### Properties

- Very good resistance against mineral acids, bases, polar solvents and especially against concentrated hydrochloric acid ≤ 38% up to +60°C and sodium hypochlorite
- Excellent diffusion resistance against gases like sulphur dioxide, nitrogen oxides, and saturated water vapour
- Suitable for vacuum services
- High thermal stability (max. +115°C)
- Application onto steel components
- On site & Workshop rubber lining

#### **CHEMOLINE 13**

#### Specifications

#### Area of application

- CHEMOLINE 13 is used mainly for workshop and on-site rubber linings of steel components which are exposed to chemical loads.
- The field of applications are mainly chemical plants, chlorine and steel industries, mineral processing plants and environmental protection plants. • Some typical examples of applications
- are the lining of storage tanks, agitated tanks, crystallization and condensation reactors and flue gas desulphurisation plants (FGD). Furthermore CHEMOLINE 13 is used in phosphoric acid plants and autoclaves.

#### Application process

#### CHEMOLINE 13

0 - Steel, blasted 1 - PRIMER PR 500-1 2 - PRIMER S 500-2 3 - ADHESIVE TC 5000 4 - CHEMOLINE 13

opeenieuciono		
Polymer basis	BIIR	ISO 1629
Abrasion	≤ 250 mm3*	ISO 4649 (ASTM D5963)
Density	1.24 ± 0.02 g/cm3	EN ISO 1183-1
Hardness	60 ± 5 Shore A**	ISO 7619-1 (ASTM D2240)
Max Surface Pressure	2 N/mm2	
Elongation at Break	≥450%***	DIN 53504 (ASTM D412)
Tensile Strength	≥ 8 N/mm2***	DIN 53504 (ASTM D412)
Impact Resillience	≥8%	DIN 53512 (ASTM D1054)
Peel Strength to Steel	≥4N/mm	ISO 813
Water Vapour Permeability	0.08 g/m2 d***	DIN 53122
Max Continuous Operating Temp	+115 °C	

Ref. No.	Designation	Dimensions
528 7100	CHEMOLINE 13	2 mm x 1100 mm x 10000mm
528 1710	CHEMOLINE 13	3 mm x 1100 mm x 10000mm
528 1720	CHEMOLINE 13	4 mm x 1100 mm x 10000mm
528 1730	CHEMOLINE 13	5 mm x 1100 mm x 10000mm
528 1740	CHEMOLINE 13	6 mm x 1100 mm x 10000mm

\* Press vulcanisation \*\* Autoclave vulcanisation \*\*\* 4mm rubber

### CORROSION PROTECTION LINING CHEMOLINE 70CN - Soft rubber lining

### CHEMOLINE 70CN – Soft rubber lining

CHEMOLINE 70 CN is an already vulcanised black soft rubber lining based on Chlorobutyl rubber and Polyvinyl Chloride (CIIR / PVC), which is equipped with an easy to bond, reactive bonding layer. CHEMOLINE 70 CN shows excellent resistance against concentrated hydrochloric acid at temperatures up to +60°C. CHEMOLINE 70 CN can be loaded directly without further vulcanisation.

#### Properties

- Very good resistance against mineral acids, bases and especially against concentrated hydrochloric acid  $\leq 38\%$ up to +60°C
- Application onto steel and concrete components
- Can be exposed to the operation conditions right after the application
- On site rubber lining

#### Area of application

- CHEMOLINE 70 CN is used mainly for on-site rubber linings of steel or concrete storage containers for concentrated hydrochloric acid up to +60 °C.
- Further examples to the applications include the lining of acid pickling lines (pickling baths) and electroplating baths.

### **CHEMOLINE 70CN**

#### Specifications CIIR/PVC Polymer basis 1.18 ± 0.02 g/cm3 Density 1.5 x 10(11) **Ω** cm Contact Resistance Hardness 57 ± 5 Shore A\*\* Max. Surface Pressure 2 N/mm2 Surface Resistance 3.5 x 10(11) Ω Elongation at Break ≥400%\*\*\* Tensile Strength ≥ 2.5 N/mm2\*\*\* Peel Strength to Steel $\geq 4 \text{ N/mm}$ Max Continuous Operating Temp +80 °C -30 up to +80 °C Temperature Range

Ref. No.	Designation	Dimensions
528 8140	CHEMOLINE 70CN	3 mm x 1100 mm x 10000m
528 8157	CHEMOLINE 70CN	4 mm x 1100 mm x 10000m
528 8164	CHEMOLINE 70CN	5 mm x 1100 mm x 10000m
528 8171	CHEMOLINE 70CN	6 mm x 1100 mm x 10000m



#### Application process

#### CHEMOLINE 70CN

0 - Steel, blasted 1 - PRIMER PR 304 2 - CEMENT BC 3004 3 - CHEMOLINE 70 CN

ISO 1629
EN ISO 1183-1
 DIN IEC 60093
ISO 7619-1 (ASTM D2240)
 DIN IEC 60093
DIN 53504 (ASTM D412)
DIN 53504 (ASTM D412)
 ISO 813

\*\* Autoclave vulcanisation \*\*\* 4mm rubber

### CORROSION PROTECTION LINING CHEMOLINE RTCN - Soft rubber lining

### CHEMOLINE RT CN – Soft rubber lining

CHEMOLINE RT CN is an already vulcanised black soft rubber lining based on a copolymerised Bromobutyl rubber (BIIR), which is equipped with an easy to bond, reactive bonding layer. CHEMOLINE RT CN can be loaded directly without further vulcanisation.

Area of application

chemical loads.

CHEMOLINE RT CN is used mainly for

the on-site rubber lining of the steel

components which are exposed to

• The field of applications are mainly

chemical plants, chlorine and steel

industries, mineral processing plants

and environmental protection plants.

Some typical examples of applications

tanks, agitated tanks, crystallization

are the rubber linings of storage

#### Properties

- Strong resistance against mineral acids
- Strong resistance against temperature excursions
- Good resistance against UV and ozone
- Application onto steel and concrete components
- Can be exposed to the operation conditions right after the application
- On site rubber lining

### CHEMOLINE RT CN

### Specifications Polymer basis

Abrasion

and condensation reactors and road tankers.	2 - CEMENT BC 3004 3 - CHEMOLINE RT CN
BIIR	ISO 1629
≤ 250 mm3*	ISO 4649 (ASTM D5963)
1.23 ± 0.02 g/cm3	EN ISO 1183-1

Density	1.23 ± 0.02 g/cm3	EN ISO 1183-1
Contact Resistance	7.0 x 10(10) <b>Ω</b> cm	DIN IEC 60093
Hardness	65 ± 5 Shore A**	ISO 7619-1 (ASTM D2240)
Max Surface Pressure	2 N/mm2	
Surface Resistance	90 x 10(10) <b>Ω</b>	DIN IEC 60093
Elongation at Break	≥ 150 %***	DIN 53504 (ASTM D412)
Tensile Strength	≥ 8 N/mm2***	DIN 53504 (ASTM D412)
Impact Resillience	≥ 8%	DIN 53512 (ASTM D1054)
Peel Strength to Steel	≥ 4 N/mm	ISO 813
Temperature Range	-40 up to +120 °C	

••••••		
Ref. No.	Designation	Dimensions
528 8140	CHEMOLINE RT CN	3 mm x 1100 mm x 10000 mm
528 8157	CHEMOLINE RT CN	4 mm x 1100 mm x 10000 mm
528 8164	CHEMOLINE RT CN	5 mm x 1100 mm x 10000 mm
528 8171	CHEMOLINE RT CN	6 mm x 1100 mm x 10000 mm

\* Press vulcanisation \*\* Autoclave vulcanisation \*\*\* 4mm rubber

Application process

CHEMOLINE RT CN

1 - PRIMER PR 304

0 - Steel, blasted

### CORROSION PROTECTION LINING CHEMONIT 33 – Hard rubber lining

### CHEMONIT 33 – Hard rubber lining

CHEMONIT 33 is an anthracite-coloured, graphite-filled hard rubber lining based on Natural rubber (NR).

#### Properties

- Strong chemical resistance against mineral acids, bases and especially excellent resistance against wet chlorine and concentrated hydrochloric acid
- High diffusion resistance
- High thermal stability (max. +105°C)
- Application onto steel components
- Workshop rubber lining

#### Area of application CHEMONIT 33 is used mainly for

- the workshop rubber lining of steel components which are exposed to chemical loads.
- The field of applications are mainly chemical plants, chlorine and steel industry, mineral processing plants, electroplating facilities and environmental protection plants.
- Some typical examples of applications are the rubber linings of storage tanks, filter tanks, agitated tanks, ion exchangers, electroplating baths, in waste incinerators, pipe spools.

### **CHEMONIT 33**

Specifications	
Polymer basis	NR
Bending Strength	≥ 80 N/mm2*
Density	1.16 ± 0.02 g/cm3
Modulus of Elasticity	≥ 2000* N/mm2
Hardness	75 ± 5 Shore D**
Max. Surface Pressure	10 N/mm2
Adhesion Strength Steel	≥ 6 N/mm2
Elongation at Break	≥ 3%***
Tensile Strength	≥ 40 N/mm2***
Coefficient of Thermal Expansion	90 x 10(-6) 1/K
Max Continuous Operating Temp	+100 °C
Temperature Range	-15 up to +100 °C

Ref. No.	Designation	Dimensions
529 3922	CHEMONIT 33	2 mm x 1100 mm x 10000 mr
529 3960	CHEMOLINE 70CN	3 mm x 1100 mm x 10000 mr



centrifuge drums and flue gas scrubbers

#### Application process

#### CHEMONIT 33

0 - Steel, blasted 1 - PRIMER HG 1 2 - PRIMER HG 2 3 - ADHESIVE SH-3A SOLUTION 4 - ADHESIVE PARA SOLUTION

ISO 1629
EN ISO 178
EN ISO 1183-1
EN ISO 527 (ASTM D638)
ISO 7619-1 (ASTM D2240)
EN ISO 4624 (ASTM D429; method E)
DIN 53504 (ASTM D412)
DIN 53504 (ASTM D412)
DIN 53752

\* Press vulcanisation \*\* Autoclave vulcanisation \*\*\* 4 mm rubber

### CORROSION PROTECTION LINING CHEMONIT 181 – Hard rubber lining

### CHEMONIT 181 – Hard rubber lining

CHEMONIT 181 is a black hard rubber lining based on Polyisoprene rubber (IR) and Styrene Butadiene rubber (SBR).

#### Properties

- Strong chemical resistance against mineral acids and bases
- High diffusion resistance
- Application onto steel components
- Workshop rubber lining
- CHEMONIT 181 is approved (Z-59.22-142) by the German Institute of Construction Technology (DIBt) for steel storage vessels.
- Certificate of suitability for aqueous food in accordance with the guidelines CFR 21§ 177.2600 of the Food and Drug Administration (FDA)
- BS 6920 (British Standard) => WRAS-listing

#### Area of application

 CHEMONIT 181 is used mainly for the workshop rubber lining of steel components which are exposed to chemical loads. The field of applications are mainly chemical plants, chlorine and steel industry, electricity generating plants, mineral processing plants and environmental protection plants. Some typical examples of applications are the rubber linings of storage tanks, filter tanks, agitated tanks, water treatment tanks, crystallization reactors, centrifuge drums as well as various tanks and pipelines in nuclear power plants.

### CHEMONIT 181

#### Specifications

Specifications		
Polymer basis	IR/SBR	ISO 1629
Bending Strength	≥ 40 N/mm2*	EN ISO 178
Density	1.32 ± 0.02 g/cm3	EN ISO 1183-1
Contact Resistance	10(11) <b>Ω</b> cm	DIN IEC 60093
Modulus of Elasticity	≥ 1500 N/mm2*	EN ISO 527 (ASTM D638)
Hardness	75 ± 5 Shore D**	ISO 7619-1 (ASTM D2240)
Max. Surface Pressure	10 N/mm2	
Adhesion Strength Steel	≥ 6 N/mm2	EN ISO 4624 (ASTM D429; method E)
Elongation at Break	≥ 3.5%***	DIN 53504 (ASTM D412)
Tensile Strength	≥ 20 N/mm2***	DIN 53504 (ASTM D412)
Coefficient of Thermal Expansion	70 x 10(-6) 1/K	DIN 53752
Max Continuous Operating Temp	+100 °C	
Temperature Range	-25 up to +100 °C	



### CORROSION PROTECTION LINING CHEMONIT 181 – Hard rubber lining

Ref. No.	Designation	Dimensions
529 4921	CHEMONIT 181	2 mm x 1100 mm x 1000
529 4969	CHEMONIT 181	3 mm x 1100 mm x 1000
529 5009	CHEMONIT 181	4 mm x 1100 mm x 1000
529 5047	CHEMONIT 181	5 mm x 1100 mm x 1000
529 5085	CHEMONIT 181	6 mm x 1100 mm x 1000

#### Application process

CHEMONIT 181
0 - Steel, blasted
1 - PRIMER HG 1
2 - PRIMER HG 2
3 - ADHESIVE SH-3A SOLUTION
4 - ADHESIVE PARA SOLUTION
5 - CHEMONIT 181

100mm 100mm 100mm 1000mm 1000mm 1000mm \* Press vulcanisation \*\*\* Autoclave vulcanisation \*\*\* 4mm rubber

CLIENT						
Request From:						
Client:					Country:	
FLANTFANTS						
Plant Part:					Area:	
Current Corrosion Protection System	Current Corrosion Protection System:					
Protection against	: 🗌 Corr	osion	Temperature	🗌 Wear		
Required Corrosio Protection System	n 🗌 Brick	Lining	Coating	On-Site Rubber		Workshop Rubber
Lining Design:	Com	plete	Repair	Partially		
Substrate:	Con	crete	Stainless Steel	□ Steel		
Location:	Outs	ide	Hall			
Insulated:	🗌 Yes	🗌 No				
Sizes:						

SERVICE CONDITIONS			Operating Temperature [°C]	
Thermal Load:	Permanent Load:			
	Occasional Load:			
	Emergency Load:			
Mechanical Load:	Agitator	☐ Solids	Solid Content [%]:	
	Flow Rate [m/s]:		Pressure [bar]:	
	Composition			Conc.
Chemical Load:				

REQUIRED PROPERTIES & APPROVALS					
Conductive	🗌 Wear Resistant	🗌 Anti-Skid	☐ Others (as specified):		
Passable	□ Non-Sticky	UV-Resistant			
□ NPP Approval	FDA Certificate	DIBt Approval	Drinking Water Approval		
☐ Others (as specified):					

17 PRODUCT PORTFOLIO

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All information is given to the best of our knowledge. All specifications are to be considered non-binding information. Any claim for damages of any kind is excluded. We reserve the right to change technical specifications without prior notice, provided that they ensure product improvement. The information presented is based on technical experience but does not guarantee a product's suitability for specific applications, and does not relieve the users of the responsibility to undertake their own testing, including where any third-party trademark rights are concerned. For special applications and operating conditions with regard to temperature, UV light, ozone, acids and alkaline solutions, dynamic and static forces, tensions, elongations and other influences, contact your local REMA TIP TOP distributor for technical advice.

Operating and working instructions, product information and general instructions on the vulcanization properties of natural and synthetic rubber should be followed carefully. The mechanical and physical values presented for our products only apply to the material listed (without bonding layer and without fabric) based on the accompanying inspections for approval; these represent statistical product data, but not guaranteed product properties. Detailed technical data sheets for each single product are available upon request. The weight indications (kg/m<sup>2</sup>, kg/m, etc.) solely represent statistical values and are not necessarily identical to the actual weights. The weights indicated are merely guidelines for the handling, transport and application of our products. The dimension tolerances are based on part 5 of DIN 7715, classification P3 (admissible dimension tolerances for sheets) and DIN ISO 3302-1, classification M4 (molded parts made of soft-rubber). Other tolerances of specific products for special applications are subject to a mutual agreement and must be stipulated in a special contract. Products containing hazardous substances are labeled in accordance with the regulations (EG) No. 1907/2006 for the

## classification, packaging and labeling of hazardous materials and preparations.

In order to preserve product properties, the storage conditions indicated in DIN 7716 should be followed (including storing the product in the original package and in an area that is dry, cool and dark).

Products printed in bold are normally available from stock.

## Talk to our team today

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//ONE BRAND //ONE SOURCE //ONE SYSTEM