

## PRODUCT INFORMATION REMACLAVE 60 ISO/803

### PRODUCT DESCRIPTION

**REMACLAVE 60 ISO/803** is a two layer rubber lining soft rubber/black hard rubber based on Natural rubber (NR).

### FIELDS OF APPLICATION

**REMACLAVE 60 ISO/803** is used mainly for the workshop rubber lining of steel pipes. The field of applications are mainly ship building industry. Some typical examples of applications are the seawater pipes of the cooling system from ocean vessels.

### FEATURES

- High diffusion resistance
- High wear resistant
- oily and chlorinated seawater
- resistance against seawater
- Application onto steel components
- Flange gaskets not necessary
- Workshop rubber lining

### CHEMICAL RESISTANTS

Information on the chemical resistance properties is available upon request.

### SUBSTRATE

Substrates are components made of non-ferrous metals, cast iron, non-alloyed or austenitic steel. Components to be rubber lined shall be designed and manufactured in accordance with DIN EN 14879-1.

### SURFACE PRE-TREATMENT

All surfaces to be rubber lined must be dry and free of contaminants. All contaminants, including non-visible detectable contaminants, must be removed in accordance with DIN SPEC 55684 or EN ISO 8502. Non-alloyed steel surfaces shall be abrasive blasted to "Near White Metal" in accordance with EN ISO 12944-4. A surface preparation degree of SA 2½ (SSPC-SP 10; NACE No. 2) as specified in EN ISO 8501-1 and a "medium (G)" roughness degree as specified in EN ISO 8503-2 must be achieved. A minimum surface profile of  $R_z \geq 60 \mu\text{m}$  is required. To prevent flash rust, the primer must be applied immediately after the blasting and cleaning of the substrate or the component must be air conditioned to a relative humidity of  $\leq 40\%$ .

### ENVIRONMENTAL CONDITIONS

Throughout the rubber lining process, the temperatures of the substrate and rubber lining materials shall be maintained within the range specified by Mahnke. All surfaces shall be maintained at a temperature at least 3K above the dew point in order to prevent condensation.

### ADHESIV SYSTEM

**REMACLAVE 60 ISO/803** is bonded onto steel components by using **ADHESIVE SH-3A SOLUTION**.

### APPLICATION METHOD AND CONSUMPTION

During the application of the product, the application instruction must always be observed.

Coat	Product	Application Method	Coverage [g/m <sup>2</sup> ]
1. Coat steel	<b>ADHESIVE SH-3A SOLUTION</b>	Brush	ca. 250
2. Coat steel	<b>ADHESIVE SH-3A SOLUTION</b>	Brush	ca. 250
1. Coat rubber	<b>ADHESIVE PARA SOLUTION or ADHESIVE SH-3A SOLUTION</b>	Brush	ca. 250

For steam vulcanization or for special applications (e.g. rubber lining on stainless steel) the two-component primer system **PRIMER HG 1 & PRIMER HG 2** is additionally applied prior to the first Coat to steel.

Coat	Product	Application Method	Coverage [g/m <sup>2</sup> ]
1. Primer	<b>PRIMER HG 1</b>	Roll /Spray	ca. 150
2. Primer	<b>PRIMER HG 2</b>	Brush	ca. 150

### CLEANING

Clean all equipment with **SOLVENT CF-CE** immediately after use.

### VULCANISATION

The details given in the application instruction must be observed during vulcanisation.

Place	Vulcanisation Method
Workshop	Vulcanisation in an autoclave under pressure by means hot air or steam.

### SPARK TEST

The spark test (holiday test) of new rubber linings is carried out according EN 14879-4 by using a high voltage tester. For carrying out the spark test, only the high voltage testers of Elmed model Isotest IIRT, Isotest 3P or Isotest Inspect 35 as well as the test pistols of Wegener model WEG 20, WEG 22 or WEG 100 are allowed.

REMACLAVE 60 ISO/803	Test Voltage [kV/mm]	Max. Test Voltage
vulcanised	4.0	20.0

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**REMARK**

For the processing of REMACLAVE 60 ISO / 803, the instructions of the current Mahnke Norm 25 must be observed. This applies in particular to the installation and operation startup of rubber lined pipes with REMACLAVE 60 ISO / 803.

**TECHNICAL DATA**

		Unit	Standard	Value
<b>Polymer</b>	803		DIN ISO 1629	NR
	60 ISO		DIN ISO 1629	NR
<b>Color</b>	803			beige
	60 ISO			black
<b>Hardness</b>	803	Shore D	DIN ISO 7619-1	65 +/- 5
	60 ISO	Shore A	DIN ISO 7619-1	60 +/- 5
<b>Density</b>	803	g/cm <sup>3</sup>	DIN EN ISO 1183-1	1,30 +/-0,02
	60 ISO	g/cm <sup>3</sup>	DIN EN ISO 1183-1	1,13 +/-0,02
<b>Tensile Strength</b>	803	Mpa	DIN 53504	≥ 40
	60 ISO	MPa	DIN 53504	≥ 24
<b>Adhesion Strength Steel</b>	803	N/mm	DIN EN ISO 4624	≥ 5
<b>Elongation at Break</b>	60 ISO	%	DIN 53504	≥ 520
<b>REBOUND Resilience</b>	60 ISO	%	DIN 53512	≥ 63
<b>Abrasion</b>	60 ISO	mm <sup>3</sup>	DIN ISO 4649	≤ 100

**Please note:**

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