



## PRODUCT INFORMATION

### COROFLAKE 23 M

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#### PRODUCT DESCRIPTION

**COROFLAKE 23 M** is a combination of a glass mat reinforced laminate lining based on a Bisphenol-A vinyl ester resin and a inert flake filled top coat, based on a chemically and thermally highly resistant Novolac vinyl ester resin. **COROFLAKE 23 M** can bridge cracks in concrete up to 0.2 mm in accordance with the DIBt construction and testing principles.

#### COATING BUILD-UP

The coating consists of the two-component primer **COROFLAKE N PRIMER**, the three-component base coat, the two-component laminate layer with a 300 g/m<sup>2</sup> glass mat and a 26 g/m<sup>2</sup> C glass veil and at least one layer of the two-component **COROFLAKE 23** top coat. Depending on the existing load, several top coats can be applied. The total dry film thickness to be applied is approx. 2.0 - 3.0 mm. If the laminate lining needs to be spark tested on concrete, **COROFLAKE N PRIMER AS** must be used as a primer.

#### FIELDS OF APPLICATION

**COROFLAKE 23 M** is the ideal material for concrete structures such as absorbers, catch basins, containers, floors and pits. **COROFLAKE 23 M** can also be used in many other areas, such as biogas plants and concrete silos.

#### FEATURES

- Excellent chemical resistance to strong inorganic acids, alkalis, salts and many organic chemicals.
- Universally applicable
- Crack-bridging properties
- Very good adhesion to concrete

#### CHEMICAL RESISTANCE

Requests for chemical resistance can be sent to [awt@tiptop-elbe.de](mailto:awt@tiptop-elbe.de).

#### SUBSTRATE

Substrates are components made of concrete, screed or plaster. The components must be designed and manufactured in accordance with EN 14879-1. The substrate must remain dry during application.

#### SURFACE PRE-TREATMENT

EN 14879-1 and the TIP TOP specification "Requirements for concrete structures and cementitious substrates" must be observed. The substrate must be prepared by suitable measures so that it is dry, free of cement slurries, cement skin, loose and friable parts, structural defects and substances with a separating effect. The residual moisture of cementitious substrates must not exceed 4%.

#### CLIMATIC CONDITIONS

During application, direct or indirect sunlight must be avoided and the climatic conditions specified in the application instruction must be observed. To avoid condensation, a dew point difference of at least 3K must be maintained. During application, the materials must never be colder than the ambient temperature at the workplace.

#### MIXING RATIO

The primer and coating materials are delivered to the construction site in mixing units so that there is no need to weigh or measure the individual components. After mixing a unit, it must be applied within the specified pot life.

Primer	Weight parts	Volume parts
<b>COROFLAKE N PRIMER</b>	100	100
<b>HARDENER No. 1 CLEAR</b>	2	2

  

Primer (conductive)	Weight parts	Volume parts
<b>COROFLAKE N PRIMER AS</b>	100	100
<b>COROFLAKE ACCELERATOR No. 1</b>	1 - 2	1.1 - 2.1
<b>HARDENER No. 1 CLEAR</b>	2	2

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#### MIXING RATIO

Base coat	Weight parts	Volume parts
LINING 65 RESIN	100	100
HARDENER No. 1 CLEAR	2	2
FILLER F1	200	189
Laminate layer	Weight parts	Volume parts
LINING 65 RESIN	100	100
HARDENER No. 1 CLEAR	2	2
Top coat / sealing	Weight parts	Volume parts
COROFLAKE 23	100	100
HARDENER No. 1 CLEAR / RED	2	2.3

#### APPLICATION METHOD | CONSUMPTION

Always observe the current application instruction before using the products. During coating work, direct or indirect sunlight must be avoided absolutely.

On the primed surface, apply the base coat approx. 1.0 - 1.5 mm thick evenly with a smoothing trowel and immediately apply the 300 g/m<sup>2</sup> glass mat, soak with resin solution and work in with a laminating roller. A 26 g/m<sup>2</sup> C-glass veil is then applied fresh in fresh as a cover using a laminating roller. Finally, at least one layer of **COROFLAKE 23** is applied as a top coat using the airless spraying method. The recommended dry film thickness is approx. 500 - 700 µm per layer. If **COROFLAKE 23** is applied by rolling or brushing, at least the double number of top coats are required to achieve the specified total dry film thickness. Ground surfaces must be generally cleaned with **SOLVENT F12**.

Primer	Application	Consumption
COROFLAKE N PRIMER	Roll / brush / airless spray	ca. 300 g/m <sup>2</sup>
COROFLAKE N PRIMER AS	Roll / brush / airless spray	ca. 300 g/m <sup>2</sup>

Base coat	Application	Consumption
LINING 65 RESIN FILLER F1	Trowel	ca. 1000 g/m <sup>2</sup> ca. 2000 g/m <sup>2</sup>

Laminate layer	Application	Consumption
LINING 65 RESIN 1 x Glass mat 300 g/m <sup>2</sup> 1 x Surface veil 26 g/m <sup>2</sup>	Roll	ca. 660 g/m <sup>2</sup> ca. 330 g/m <sup>2</sup> ca. 30 g/m <sup>2</sup>

Top coat	Application	Consumption
COROFLAKE 23	Airless spray / roll / brush	ca. 900 - 1100 g/m <sup>2</sup>

The consumption indicated is an average value. The actual consumption depends on the object geometry and the application method. It can therefore vary.

#### POT LIFE | RECOAT TIME

Product	Working time			Recoat time (20°C)	
	15°C	20°C	30°C	Min.	Max.
COROFLAKE N PRIMER	60 min	40 min	20 min	8 h	14 d
COROFLAKE N PRIMER AS	60 min	35 min	10 min	4 h	14 d
COROFLAKE 23	90 min	60 min	30 min	4 h	3 d

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#### POT LIFE | RECOAT TIME

Product	Working time			Recoat time (20°C)	
	15°C	20°C	30°C	Min.	Max.
LINING 65 RESIN	60 min	40 min	20 min	4 h	7 d

#### CLEANING

All equipment should be cleaned with **SOLVENT T-200** immediately after use. The equipment should be cleaned in a well-ventilated area. It is recommended to flush the spraying equipment several times during the working day. The frequency of cleaning depends on the spray volume, temperature and elapsed time, including possible delays.

#### SPARK TEST

The spark test is carried out in accordance with EN 14879-2 using a high-voltage tester. The previously measured average dry film thickness is the basis for the test voltage. The test is carried out at the earliest 24 hours after finishing the top coat at a curing temperature of +20°C.

Product	Test voltage
COROFLAKE 23 M	0,5 kV / 100 µm DFT

#### DELIVERY FORM | MINIMUM SHELF LIFE

Product	Packaging	Article No.	Storage temperature	Min. shelf life
C-GLASS VEIL T1777C - 26 g/m <sup>2</sup>	250 m <sup>2</sup>	590 9800	-	-
COROFLAKE 23	5 kg	590 0514	≤ +10°C   ≤ +20°C	9 Mon   6 Mon
COROFLAKE 23	20 kg	590 0057	≤ +10°C   ≤ +20°C	9 Mon   6 Mon
COROFLAKE ACCELERATOR No. 1	0.4 kg	590 2985	5 - 20°C	6 Mon
COROFLAKE N PRIMER	5 kg	590 0480	≤ +10°C   ≤ +20°C	9 Mon   6 Mon
COROFLAKE N PRIMER	20 kg	590 0040	≤ +10°C   ≤ +20°C	9 Mon   6 Mon
COROFLAKE N PRIMER AS	5 kg	590 2983	5 - 20°C	6 Mon
COROFLAKE N PRIMER AS	20 kg	590 2990	5 - 20°C	6 Mon
E-GLASS MATT M-123-300 g/m <sup>2</sup>	1 m <sup>2</sup>	590 0300	-	-
FILLER F1	25 kg	591 0140	-	24 Mon
HARDENER No. 1 CLEAR	0.1 kg	590 0181	5 - 20°C	12 Mon
HARDENER No. 1 CLEAR	0.4 kg	590 0019	5 - 20°C	12 Mon
HARDENER No. 1 RED	0.1 kg	590 0356	5 - 20°C	12 Mon
HARDENER No. 1 RED	0.4 kg	590 0112	5 - 20°C	12 Mon
LINING 65 RESIN	5 kg	590 0435	5 - 20°C	6 Mon
LINING 65 RESIN	20 kg	590 0411	5 - 20°C	6 Mon
SOLVENT F12	4 kg	590 0095	5 - 20°C	12 Mon
SOLVENT T-200	4 kg	590 0610	5 - 25°C	60 Mon
SOLVENT T-200	8 kg	590 0611	5 - 25°C	60 Mon
SYNTHETIC VEIL T1773 - 22 g/m <sup>2</sup>	250 m <sup>2</sup>	590 0291	-	-

#### SAFETY MEASURES

The safety data sheets for the individual components and the legal regulations for handling hazardous substances must be observed. The prescribed personal protective equipment must be worn. Information on disposal can be found in the safety data sheets for the individual products. The safety data sheets can be downloaded from our homepage in the download area.

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#### PHYSICAL DATA

Properties	Standard	Unit	Value
Abrasion	ASTM D4060	mg	90
Adhesive strength concrete	EN ISO 4624 (ASTM D7234)	N/mm <sup>2</sup>	1.5*
Barcol hardness	EN 59 (ASTM D2583)	Barcol	≥ 35
Linear coefficient of thermal expansion	ISO 11359-2 (ASTM C531)	K <sup>-1</sup>	25 - 30 x 10 <sup>-6</sup>
Max. Temperature for liquids	-	°C	+75
Polymer base	-	-	Vinyl ester
Viscosity	EN ISO 2555 (ASTM D2196)	mPa·s	3000 ± 250

The specified temperatures depend on the existing load and can therefore vary.

\* Depending on the concrete strength

Information given in the fact sheet above corresponds to the current knowledge available to us regarding our products at the time of its drafting and is intended as a guideline for informational purposes. However, because of the multiple possibilities regarding possible applications, processing and on site conditions, any information given in the fact sheet above is not legally binding, in particular, without being limited to, such information shall not be interpreted as a warranty of merchantability or of fitness for a particular purpose. Customer therefore is advised to conduct its own testing or make an inquiry with our technical department before ordering. We reserve the right to change the product at any time, in particular, without being limited to, minor changes because of advancements in technology. If by way of exception, the information given in the fact sheet above is incorporated by reference into any contract concluded with us under German Law, such information, shall only be interpreted as determining the specific requirements of the contractual products as set out in § 434 BGB (German Civil Code) and shall not be interpreted as constituting a guarantee of condition.