



## PRODUCT INFORMATION

### COROFLAKE 24 C

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#### PRODUCT DESCRIPTION

**COROFLAKE 24 C** is a two-component, vapour diffusion resistant, conductive polymer coating filled with graphite flakes based on a chemically highly resistant Bisphenol-A vinyl ester resin. The graphite flakes orientated parallel to the substrate form an excellent diffusion barrier and thus provide a long service life.

#### COATING BUILD-UP

The coating consists of the two-component primer **COROFLAKE N PRIMER** and at least one, usually two coats of the two-component topcoat **COROFLAKE 24 C**, each with a dry film thickness of approx. 500 - 700 µm. The total dry film thickness to be applied depends on the existing chemical and thermal stress and can be up to 2.0 mm.

#### FIELDS OF APPLICATION

Due to the special fillers, **COROFLAKE 24 C** is electrically conductive and can therefore be used in explosion-protected areas using **COROFLAKE N PRIMER AS**. **COROFLAKE 24 C** does not contain any silicate fillers and can therefore be used in areas subject to high alkaline loads, e.g. in storage tanks for caustic soda as well as conductive top coat for the **COROFLAKE 24** or **COROFLAKE 34** coating systems.

#### FEATURES

- Good chemical resistance especially to hydrofluoric acid and alkalis
- Electrically conductive
- Application by airless-spraying, rolling or brushing

#### 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 non-ferrous metals, cast materials, unalloyed or austenitic steel. The components must be designed and manufactured in accordance with EN 14879-1. The substrate must remain dry during application.

#### SURFACE PRE-TREATMENT

EN14879-1 and the TIP TOP specification "Corrosion protection of metallic components" must be observed. Unalloyed steel must be blasted to "Near White Metal" in accordance with EN ISO 12944-4. A surface preparation degree of SA 2½ according EN ISO 8501-1 and a roughness degree "Medium (G)" according EN ISO 8503-2 must be achieved. A minimum roughness depth of  $Rz \geq 70 \mu\text{m}$  is required. After blasting, the formation of new rust should be prevented by suitable measures (e.g. priming).

#### 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

Coating / topcoat	Weight parts	Volume parts
<b>COROFLAKE 24 / COROFLAKE 24 C</b>	100	100
<b>HARDENER No. 1 CLEAR / RED</b>	2	2.2

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#### APPLICATION METHOD | CONSUMPTION

Always observe the current application instruction before using the products. During coating work, direct or indirect sunlight must be avoided absolutely. If **COROFLAKE 24 C** 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**.

Product	Application	Thickness	Consumption
<b>COROFLAKE N PRIMER</b>	Roll / brush / airless spray	covering	ca. 150 g/m <sup>2</sup>
<b>COROFLAKE 24</b>	Airless spray / roll / brush	500 - 700 µm	ca. 900 - 1100 g/m <sup>2</sup>
<b>COROFLAKE 24 C</b>	Airless spray / roll / brush	500 - 700 µm	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.
<b>COROFLAKE N PRIMER</b>	60 min	40 min	20 min	8 h	14 d
<b>COROFLAKE 24</b>	90 min	60 min	30 min	4 h	7 d
<b>COROFLAKE 24 C</b>	90 min	60 min	30 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

Due to its electrostatic properties (electrically conductive), the lining material cannot be tested for the absence of pores and cracks using high-voltage testers. The lining material is tested for pores and cracks by 100% visual inspection with optimum illumination.

Product	Test voltage
<b>COROFLAKE 24 C</b>	-

#### APPROVALS AND TEST CERTIFICATES

General technical approval **Z-59.13-502** of the German Institute for Building Technology (DIBt) for steel storage tanks. The following coating build-up must be selected for approval:

Primer: 1 x **COROFLAKE N PRIMER**

Intermediate layer: 2 x **COROFLAKE 24** (500 - 700 µm)

Top coat: 2 x **COROFLAKE 24 C** (500 - 700 µm)

#### DELIVERY FORM | MINIMUM SHELF LIFE

Product	Packaging	Article No.	Storage temperature	Min. shelf life
<b>COROFLAKE 24</b>	5 kg	590 0538	≤ +10°C   ≤ +20°C	9 Mon   6 Mon
<b>COROFLAKE 24</b>	20 kg	590 0064	≤ +10°C   ≤ +20°C	9 Mon   6 Mon
<b>COROFLAKE 24 C</b>	20 kg	590 4120	5 - 20°C	3 Mon
<b>COROFLAKE N PRIMER</b>	5 kg	590 0480	≤ +10°C   ≤ +20°C	9 Mon   6 Mon
<b>COROFLAKE N PRIMER</b>	20 kg	590 0040	≤ +10°C   ≤ +20°C	9 Mon   6 Mon
<b>HARDENER No. 1 CLEAR</b>	0.1 kg	590 0181	5 - 20°C	12 Mon
<b>HARDENER No. 1 CLEAR</b>	0.4 kg	590 0019	5 - 20°C	12 Mon

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#### DELIVERY FORM | MINIMUM SHELF LIFE

Product	Packaging	Article No.	Storage temperature	Min. shelf life
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
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

#### 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.

#### PHYSICAL DATA

Properties	Standard	Unit	Value
Adhesive strength steel	EN ISO 4624 (ASTM D4541)	N/mm <sup>2</sup>	≥ 4
Bleeder resistance (to earth)	EN 1081	Ω	< 10 <sup>6</sup>
Density (mixture)	EN ISO 2811 (ASTM D1475)	g/cm <sup>3</sup>	1.15 ± 0.02
Max. Temperature dry (flue gases)	-	°C	+120
Max. Temperature for liquids	-	°C	+75
Shore hardness	ISO 48-4 (ASTM D2240)	Shore D	≥ 70
Viscosity	EN ISO 2555 (ASTM D2196)	mPa·s	3750 ± 250

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

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.