

PRODUCT INFORMATION

COROFLAKE CERAMIC TC

PRODUCT DESCRIPTION

COROFLAKE CERAMIC TC is a two-component, high abrasion resistant polymer coating based on a flexibilized vinyl ester resin.

COROFLAKE CERAMIC TC has been designed especially for chemical plants and vessels where high abrasion occurs in addition to thermal and chemical exposure.

By using special ceramic fillers, **COROFLAKE CERAMIC TC** achieves excellent abrasion resistance combined with non-sticky properties as well as good thermal and chemical resistance.

COATING LAYERS CONSUMPTION

The coating system consists of the two-component **COROFLAKE CERAMIC TC** topcoat. The total applied DFT is approx. 500 µm per coat.

FIELDS OF APPLICATION

COROFLAKE CERAMIC TC is applied as topcoat over polymer coatings based on vinyl ester resins to increase the abrasion resistance.

COROFLAKE CERAMIC TC is used mainly in process plants in the chemical industry and in flue gas desulphurization plants, where high abrasion occurs due to solids. Due to its low surface tension, caking and deposition of solids can be avoided.

FEATURES

- High abrasion resistance
- Non-stick effect against caking
- Good chemical resistance
- High dry temperature stability
- Outstanding adhesion to polymer coatings based on vinyl ester resins
- Application by spraying

CHEMICAL RESISTANCE

Information on the chemical resistance properties is available upon request.

SUBSTRATE

Substrates are coatings based on Novolac vinyl ester resins. Components to be coated shall be designed and manufactured in accordance with EN 14879-1.

SURFACE PRE-TREATMENT

The subsequent layer of coating can be applied onto the previously applied layer straightforward without surface preparation. But the time interval between the consecutive coatings should not exceed a maximum of 72 hours. If this condition is not met, the surface of the previous layer needs to be roughened by abrasive blasting.

ENVIRONMENTAL CONDITIONS

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

APPLICATION

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

COROFLAKE CERAMIC TC topcoat is only applied using an airless air spray system. Grinded surfaces must generally be cleaned with **SOLVENT F12**.

Note: During application, the lined surface should be shaded from direct or indirect sunlight whenever possible.

MIXING RATIO

The primer and coating components are supplied in pre-measured units so that weighing or measuring of the components is kept to a minimum. After the unit has been mixed it shall be used within the specified pot life.

Coating	Parts by Weight	Parts by Volume
COROFLAKE CERAMIC TC	100	100
HARDENER No. 1 CLEAR	2	2.5

CONSUMPTION

Product	Thickness [µm]	Coverage [g/m ²]
COROFLAKE CERAMIC TC	ca. 400 - 600	ca. 1000 - 1200

The information about coverage is an average for spray applications. Actual coverage depends on the object geometry and the method of application. It can vary.

POT LIFE / WORKING TIME [min]

Product	15°C	20°C	30°C
COROFLAKE CERAMIC TC	ca. 90	ca. 60	ca. 30

CLEANING

Clean all equipment with **SOLVENT T-200** immediately after use. Frequency of cleaning will depend upon amount applied, temperature and elapsed time, including any delays.

SAFETY MEASURES

The material safety data sheets of the individual components, the safety instructions on the packing (label) as well as the legal requirements for handling hazardous materials must be observed.

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PACKING UNITS

The products are supplied in the following standard package sizes:

Product	Size	Article No.
COROFLAKE CERAMIC TC	5 kg	590 2285
COROFLAKE CERAMIC TC	20 kg	590 2280
HARDENER No. 1 CLEAR	0.1 kg	590 0181
HARDENER No. 1 CLEAR	0.4 kg	590 0019
SOLVENT F12	4 kg	590 0095
SOLVENT T-200	4 kg	590 0610
SOLVENT T-200	8 kg	590 0611

STORAGE

The products must be stored in a cool and dry place, away from direct sunlight. At the specified storage temperatures a shelf life of the products is given of at least for the following periods:

Product	Temperature	Shelf Life
COROFLAKE CERAMIC TC	5 - 20°C	4 Months
HARDENER No. 1 CLEAR	5 - 20°C	12 Months
SOLVENT F12	5 - 20°C	12 Months
SOLVENT T-200	5 - 25°C	60 Months

If the storage time is exceeded, the materials must be tested before use. Higher storage and transport temperatures will reduce the shelf life. The containers must be kept tightly closed. Liquid products must be stored frost-proof. In addition, the DIN 7716 must be observed.

Technical Data	Standard	Unit	Value
Abrasion	ASTM D4060	mg	49
Density (Mixture)	EN ISO 2811 (ASTM D1475)	g/cm ³	1.45 ± 0.02
Modulus of Elasticity (Bend Test)	EN ISO 178 (ASTM D790)	N/mm ²	3000 ± 500
Hardness Barcol	EN 59 (ASTM D2583)	-	> 30
Min. Adhesion Strength Steel	EN ISO 4624 (ASTM D4541)	N/mm ²	7
Test Voltage (earliest after 24 hours)	EN 14879-2	kV / 100µm DFT	0.5
Viscosity	EN ISO 2555 (ASTM D2196)	mPa·s	3080 ± 250
Linear Coefficient of Thermal Expansion	ISO 11359-2 (ASTM C531)	1/K	27-30 x 10 ⁻⁶
Tensile Strength	EN ISO 527 (ASTM D638)	N/mm ²	48
Max. Operating Temperature Liquids	-	°C	+75
Max. Operating Temperature Dry (Flue Gas)	-	°C	+180

Note: The indicated temperatures are dependent on the present load and may 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.

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