STEULER | Linings

TI 102

Technical Information Surface Protection Linings
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OXYDUR K 425

Primer for Oxydur-Systems on concrete and steel substrates

Base

Polyester resin

Material Group

Primers, Levelling compounds

Description and use

OXYDUR K 425 is an abrasion-resistant 3-component primer on concrete and steel substrates for OXYDUR-systems; scraper coats, laminates, polyurethane sealing layers, elastomer coatings and mortars.

Properties

- when fully cured resistant to abrasion

System Design

Primer for concrete substrates:

- Oxydur K 425 (2 coats)

Primer for steel:

- Oxydur K 425 (the number of coats required depends on the substrate condition)

Chemical Resistance

Resistant to salt solutions, various solvents, diluted acids and alkalis.

Please contact our Application Technology Department for approval of the project-specific possible application.

Substrate

Requirements

Processing temperature	approx. 5–30 °C
Dew point distance	> 3 K
Dew point distance from 70% air humidity	> 5 K

Optimal temperature is 20 °C. Higher and lower temperatures influence the pot life and consistency of the mixtures.

Avoid draughts and solar radiation.

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Concrete / screed

Refer to DIN EN 14879-1 as well as to STEULER-KCH-Formsheet 010.

To achieve sufficient adhesive tensile strength, the substrate must generally be pre-treated in such a way that it is free of cement slurry, cement skin, loose and friable parts, structural defects and separating substances.
The residual moisture of cementitious substrates must not exceed 4 %.

The condition of the substrate must be documented by STEULER-KCH-Test-Record 006 (concrete) resp. STEULER-KCH-Test-Record 007 (screed).

Steel

Refer to DIN EN14879-1 as well as to STEULER-KCH-Formsheet 020 and 030.

The steel surface is blasted to near white blast cleaning. A surface cleanliness of Sa 2½ according to DIN EN ISO 12944-4 and the roughness grade "Medium (G)" according to DIN EN ISO 8503-1 must be achieved; minimum surface roughness Rz = 70 µm. After blasting, the formation of new rust must be prevented by suitable measures, such as priming directly.

The condition of the substrate must be documented by STEULER-KCH-Test-Record 003 (Steel) resp. STEULER-KCH-Test-Record 004 (Inspection of Grit Blasting Works).

Moisture

During application, the substrate must be kept dry. No moisture (condensate, mist, etc.) must get onto the material.

Different substrates

For example, as a adhesive layer on Oxydur PU coatings (for subsequent polyester/vinyl ester mortars). Please ask our Application Technology Department.

Packaging / Shelf life

All components must be stored and transported dry. The minimum shelf life applies to a storage temperature of 20 °C, unless otherwise specified. Higher temperatures reduce, lower temperatures increase the minimum shelf life.

Component	Item number	Package	Content	Shelf life
Oxydur-K425-Solution 1	5036021011	Can	3 kg	6 Months
Oxydur-K425-Solution 2	5036022036	Can	1.5 kg	6 Months
Oxydur-Hardener 20	5011052003	Drum	5 kg	12 Months

For handling, transport and storage observe the relevant safety data sheets.

Mixing Ratio / Consumption

	Part by weight	Part by volume
Oxydur-K425-Solution 1	2.0	1.90
Oxydur-K425-Solution 2	1.0	0.88
Oxydur-Hardener 20	0.2	0.33

On concrete (2 coats)

Total consumption for 2 coats in kg/m² (approx.)	0.350
Work steps	2
Layer thickness in mm (approx.)	0.1

On steel (per coat)

Consumption per application in kg/m² (approx.)	0.150
Work steps	1
Layer thickness per application in µm (approx.)	50–70

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Pot Life

Pot life depends on temperature:

5 °C	approx. 45 minutes
20 °C	approx. 20 minutes
30 °C	approx. 10 minutes

Waiting and curing times

The system must cure at temperatures between 5 and 30 °C.

The minimum waiting time until further processing and the maximum waiting time between application steps are as follows (approx.):

Temperature	Min. Time	Max. Time
5 °C	5 h	36 h
20 °C	3.5 h	24 h
30 °C	1.5 h	12 h

If the maximum waiting time is exceeded or if moisture enters the system, the coating must be evenly sanded to a matt finish. Then re-coat again!

The finished coating is fully chemically resistant at 20 °C after 7 days.

Safety and Disposal

- Sufficient ventilation and venting (especially in pits and tanks)
- No smoking/No fire
- Refer to the safety data sheets
- Observe hazard warnings and safety instructions on labels.
- Wear required personal protective equipment (avoid skin contact with materials)
- Clean and protect hands with skin protective soap and skin protection cream (no solvents)
- Wear a dust mask when grinding (e.g. for repairs)
- Operating instructions as per § 14 of GefahrstoffV (Toxic Substances Act) and TRGS 507 (Technical regulations for Hazardous Substances - Germany)
- Accident prevention regulations by the Liability Insurance Association for the Chemical Industries (Germany)

Avoid direct contact of the materials with the flame, especially during welding work (welding beads) on site.

Preferably consume residual quantities. Do not pour into a spout or dustbin! Collect separately for disposal in durable, lockable and labelled containers.

GISCODE

Product	GISCODE
Oxydur K 425	SB-STY20

Cleaning of Equipment

Tools soiled with uncured materials can be cleaned with STEULER UNIVERSAL CLEANER (Technical Information TI 190). Only clean in well ventilated areas.

This issue replaces all previous versions.

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