



Corrosion protection for steel and concrete surfaces

Product description:

2-component solvent-free mineral coating which hardens hydraulically

The combination of selected natural minerals plus a high-grade reactive fluid component produces the ready-for-use mixture CEM 40 grey.

The outstanding product properties include:

- **Very good application on stable, rusty steel surfaces, concrete and stoneware**
- **Resistance from pH 14 down to pH 3.5**
- **Temperature stability from -40 °C up to 200 °C in the humid environment**
- **High adhesion force to steel, concrete and stoneware**
- **The material's expansion coefficient is the same as that of steel**
- **Coating will not come off due to infiltration after a mechanical damage**
- **Resistant against technically treated water**
- **Neutral regarding drinking water**
- **Vapour permeability**

Ground preparation:

When viewing the steel surface without enlargement, it must be free of oil, grease, paint, coatings and any loose separating substances.

Rolling skin and mill scale must be removed by sandblasting.

Stable rust can remain on the steel.

Degree of purity according to ISO 8501-1 Sa1.

A small amount of residual humidity (no free water) can be tolerated.

Cleaning:

Ultrahigh water pressure with rotating nozzles

Distance of nozzles from surface < 2 cm, with direct withdrawal by suction in order to avoid soiling of previously cleaned surfaces

Operating pressure ≥ 2,000 bar, ≥ 14l/min.

Alternative procedures: Sandblasting, grinding

Mixing process:

Shake the fluid component included in the delivered package (in plastic container) well, add it to the powder component and **mix the two components so that no lumps are formed (using a wing-type agitator is a must). Let the mixture rest for at least 15 minutes**, then mix well again and apply only after this step.

Processing period:

The processing period of the ready-for-use mixture is around 2 hours at an ambient temperature of 20°C.

Low temperatures will prolong the processing period, high temperatures will reduce it.

The mixing location should be protected against direct solar radiation.

Processing:

Painting, centrifugating, spraying

1. Brush or roll
2. Centrifugating by means of a pneumatic motor with a lamellar head
3. Airless spraying pressure ≥ 100 bar
(prior to spraying, the finished mixture must be fed through a shaking screen of < 0.5 mm mesh size.)

CODE OF PROCESSING PRACTICE

CORROPIPE[®] CEM 40_{grey} Corrosion protection



Consumption figures:	Coating layer thickness > 1 mm (1.8 kg/m²) on corroded steel surfaces In the airless spraying process, up to around 25% more material may be consumed. The material quantity to be used must be applied in two or more work steps . The next work step can follow when the surface of the previous work step is surface-dry. A layer of 1 mm thickness max. is to be applied in each work step as otherwise cracks may occur. At high ambient temperatures above 20 °C, low air humidity and work interruptions of more than 8 hours, the material may be dried out. In this case, the dry surface must be moistened with water in order to avoid bubbles in the newly applied material layer. As CEM 40 grey is a hydraulically hardening mineral material, intervals of up to 48 hours may be required between the spray steps when the air humidity is high and ambient temperatures are low (5 - 10 °C).
Putting into operation:	Surface is strong and suitable for walking after 12 hours at an ambient temperature of 20 °C.
Surface quality:	Smooth to orange skin-like appearance (when spraying)
Layer thickness:	The layer thicknesses must be checked using suitable measuring equipment and respected.
Technical values:	Powder component: Component A , high-quality mineral component. Fluid component: Component B , aqueous polymer dispersion with additives.
Material colour:	Grey
Processing temperature:	Not below 5 °C, avoid direct solar radiation when applying an exterior coating. The mixing location should be protected against direct solar radiation.
Cleaning of equipment:	With water
Material density:	Wet 1.8 kg = 1 litre of finished mixture
Storage:	12 months, store in a dry place, not below 0 °C

Material safety measures:

As with cement products. Store under lock and key and inaccessible for children. Flush thoroughly with water in case of eye contact. Remove any soiled or soaked clothing from the body. Wear suitable protective gloves/face protection during work.

Hazard notes: Irritates the eyes and the skin

Hazardous material for transport: No

Environment: The material can be disposed of on a household waste dump after hardening.

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