



CEM OX

Passivating slurry for rebars

CE marking:
• EN 1504-7



TECHNICAL SPECIFICATIONS



FIELD OF APPLICATION



APPLICATIONS



Description

CEM OX is a mono-component powdered ready-made product, made with cement binders and functional polymers, specially formulated for:

- The protection against corrosion of rebars in reinforced concrete structures.
- The creation of adhesion bridges between the concrete to be refurbished and repair mortars.

CE marking

CEM OX complies with the principles stated in the EN 1504-9 standard ("Products and systems for protecting and repairing concrete structures: definitions, requirements, quality control and conformity evaluation. General principles for use of products and systems") and with the requirements of the EN 1504-7 standard ("Protection against the corrosion of reinforcements").

Colour

CEM OX is available in the oxide red version.

Field of application

CEM OX is used exclusively for treating rebars that remain exposed during concrete restructuring works (demolition of the concrete cover), following the removal of detached parts or heavily carbonated parts that must be refurbished.

Advantages

- CEM OX is a mono-component product that is mixed with water alone.
- CEM OX possesses high adhesion on concrete.

Specific preparation of the laying support

CEM OX is suitable for treating rebars that were left exposed following restructuring works on concrete that include the partial demolition of the concrete cover.

Before applying the product, it is necessary to:

- Free the rebars from the deteriorated concrete cover via mechanical demolition.
- Eliminate rust from the iron surface as described below:
 - clean the surface thoroughly and remove any loose parts;
 - brush or sandblast the rebars to be treated until all traces of rust have been eliminated;
 - wash the laying surface with water to saturate the support and keep it damp (especially during the hot months)

Preparing the product

- Mix 2 kg of CEM OX with 0.4–0.5 l of clean water.
- Mix slowly using a low-speed drill and an impeller for solid material (anchor impeller), until obtaining a lump-free slurry.
- Apply CEM OX within no later than 1 hour after the preparation.

Application of the product

- Apply the first coat of CEM OX with a brush on the rebars to be protected, making sure that they are completely

CEM OX

covered with roughly 1 mm of product.

- After 1 hour apply the second coat, as explained above.
- We recommend covering the iron surface completely and homogeneously.
- The total thickness of the two coats must be at least 2 mm.
- Coat the part to be repaired (reconstruction of the concrete cover) with GROVE RIPRISTINO as soon as CEM OX has hardened and, nonetheless, within 24 hours.

Consumption

type of application	minimum consumption	maximum consumption	UoM	dilution
For rebars with improved adhesion Ø = 10 mm:	0,12	0,15	kg/m	dry product

To obtain a dry product film roughly 1 mm thick, it is necessary to apply roughly 1.75 kg of product per m2 of surface.

Cleaning of tools

- Wet product: clean with water (including a power wash).
- Hardened product: remove mechanically.

Useful application tips

- Apply at temperatures between +5°C and +35°C.
- In case of very hot and windy days, thoroughly saturate the surface to be treated with water and ensure the applied product stays damp by spraying water mist to aid its curing.
- Do not dilute CEM OX with water when the products starts to set.
- Apply CEM OX immediately after sandblasting (do not leave sandblasted reinforcements unprotected for long periods).
- CEM OX is not suitable for remaining exposed, but is formulated for being covered with successive completion treatments.

Technical data

► PRODUCT IDENTIFICATION DATA	UoM	value
Density in bunch, EN 1097-3	kg/L	1,25 ± 0,05
Consistency	-	Powder
Maximum grain size, EN 933-1	mm	0,4
Solid residue	-	100%
► APPLICATION DATA AND FINAL PERFORMANCES	UoM	Value
Mix water	-	From 20% to 25%
Colour of the mix	-	Oxide red
Consistency of the mix	-	Thixotropic paste
Density of the mix, EN 1015-6	kg/L	1,80 ± 0,05
Application temperature	°C	From +5 to +35
Duration of the mix	min	From 50 to 60
Minimum interval between two successive coats (23°C, 50% R.H.)	hours	From 1 to 2
Hardening time, 1 mm thickness, at +23°C with 50% R.H.	hours	3,0 ± 0,5
Minimum applicable thickness, with 2 coats	mm	2
► TECHNICAL DATA IN CONFORMITY TO EN 1504-7	UoM	value
Adhesion on concrete, support type MC 0.40 (as per EN 1766), EN 1542	MPa	2,2 ± 0,1
Cross-cut adhesion of the concrete covering the reinforcement (extraction test), load ratio between the protected and unprotected reinforcement measured with 0.1 mm extraction, EN 15184	-	Specification exceeded, TYPE 2 fracture

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Storage of the product

- 12 months in the closed original packaging, in a dry and covered place away from direct sunlight, at a temperature between +5°C and +35°C.
- Protect the product against humidity.

Packages

VARIANT	PACKAGE	ADR	PACKAGES PER PALLET	COMPONENTS
-	fustino da 2 kg	NO	120 fustini	

Legenda ADR:
NO = merce NON PERICOLOSA

LEGAL NOTES

Advice on how to use our products corresponds to the current state of our knowledge and does not involve the assumption of any guarantee and / or responsibility for the final result of the work. They do not refore exempt the customer from the responsibility of verifying the suitability of the products for the use and the prefixed purposes through preventive tests. The website www.nordresine.com contains the latest revision of this datasheet.

EDITION

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