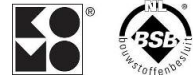


Cuglacrete Portland grof R4


CUGLACRETE Portland grof R4 is:

- a cementitious mortar for non-structural repairs according to NEN-EN 1504-3
- is KOMO certified according to BRL 1904 cement based mortars
- complies with the requirements of the Building Materials Decree
- factory made polymer modified mortar based on Portland cement
- completed with high-quality polyacrylonitril fibre
- ideal for using indoor and outdoor
- developed with the latest nanotechnology



CUGLACRETE Portland grof R4 can be used for repair methods according to NEN-EN 1504-3 table 1:

- 3.1 Concrete restoration by applying mortar by hand
- 3.3 Concrete restoration by spraying mortar of concrete
- 4.4 Structural strengthening by adding mortar or concrete
- 7.1 Increasing cover to reinforcement with additional cementitious mortar or concrete
- 7.2 Replacing contaminated or carbonated concrete

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0956-CPR-0707	
NEN-EN 1504-3	
DoP: EM0450-02-10-2023	
Concrete repair product for structural repair based on cement	
Compressive strength	class R4
Chloride ion content	≤ 0,05 %
Adhesive Bond	≥ 2,0 MPa
Carbonation resistance	Passes
Elastic modulus	≥ 20 GPa
Thermal compatibility	≥ 2,0 MPa
Capillary absorption	≤ 0,5 kg/(m ² *h ^{0,5})
Dangerous substances	comply with 5.4
Reaction to fire	class A1

Directions for use

Cugla advises to do the concrete repair as described in **NEN-EN 1504-10** Products and systems for the protection and repair of concrete structures – Definitions, requirements, quality control and evaluation of conformity – **Part 10: Site application of products and systems and quality control of works.**

Pre-treatment

For an optimal adhesion Cugla advises the use of:

CUGLACRETE HECHTPRIMER CEMENTGEBONDEN, a cementitious polymer modified system.

or

CUGLACRETE HECHTPRIMER EPOXY SEALER, a system bases on epoxy.

or

CUGLACRETE HECHTPRIMER POLYMEER, a fine polymer dispersion in water based on an acrylic resin.

Mixing

Mechanically mix CUGLACRETE until it becomes a homogeneous mixture. Mixing time depends on the type of mixer, approx. 3 minutes.

Waterdosage

Water bandwidth: 3,0 – 3,4 ltr/20 kg mortar. Dose, within the indicated water bandwidth, with plenty of water so as to produce a mortar with the right consistency.

Apply Mortar

- **Apply manual**
Apply the mortar in layers and make sure the mortar is well compacted. After application the surface can be finished with a trowel.
- **Polishing**
Apply the mortar with a pre-wetted sponge on to the surface.

Follow up treatment

The finished surface must be carefully protected against dehydrations with

- CUGLA CURING COMPOUND, or
- cover with plastic foil.

Storage and shelf life

If stored in a dry place the product has a shelf life up to 12 months after production date, as stated on the packaging.

Packaging

Cuglacrete Portland fijn R1 is available in bags of 20 kg.

Health aspects

Cugla advises:

- To wear appropriate personal protective equipment (PPE).
- To avoid contact with eyes and skin.
- In case of contact with the eyes, to rinse immediately with plenty of water and seek medical advice.
- In case of swallowing the product immediately contact a doctor and show the package or the safety data sheet.

Safety data sheets, SDS, are available via our website www.cugla.com.

EC declaration of conformity

The undersigned declares that this concrete repair product, as mentioned in this technical data sheet, meets the requirements according to NEN-EN 1504-3.

The Factory Production Control (FPC) is evaluated by KIWA NEDERLAND BV – RIJSWIJK The Netherlands. The EC certificate of conformity, number 0956-CPR-0707, is awarded by KIWA NEDERLAND BV Certification on 01-07-2013.

Breda, 02 Octobre 2023

I. Velthoen
Technical Director

Technical data at 20 °C and 65% RH

Property	Standard		Value	
Maximum grain	EN 12192-1		2,0	mm
Water bandwidth			3,0 – 3,4	l/20 kg
Exposure class	EN 206-1		X0 till XA3	
Layer thickness			60	mm max.
Density	EN 12190		2200	kg/m ³
Workability	EN 13395-1		130 – 150	mm
Initial setting time			30	min
Air content	EN 12350-7		3,5 – 6,5	%
Compressive strength	EN 12190	1 day	> 8	N/mm ²
		28 days	> 45	N/mm ²
Adhesive bond		28 days	> 2,0	N/mm ²
Freeze-thaw (50 cycli with salt)	EN 13687-1		> 2,0	N/mm ²
Carbonation resistance	EN 13295		pass	mm
Elastic modulus	EN 13412		> 20000	N/mm ²
Shrinkage	EN 12617-4	28 days	< 0.95	mm/m
Capillary absorption	EN 13057		< 0,5	kg/(m ² *h ^{0,5})

Changes to this document will not automatically be issued. Any previous product information hereby becomes null and void. The above data is provided to the best of our knowledge. The tests have been carried out under laboratory conditions. We will not accept any liability for the results achieved on the work, now that we have no influence on the process nor the specific conditions of the work.

Our general sales, delivery and payment conditions apply to all our transactions and are available at www.cugla.com.