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CUGLATON® HOOGOVEN GIETMORTEL 4 MM

- CUGLATON HOOGOVEN GIETMORTEL 4 mm is a shrink-proof, low viscous mortar that fills all cavities and spaces based on blast-furnace cement.
- CUGLATON HOOGOVEN GIETMORTEL 4 mm meets the sustainability requirement conform CUR Recommendation 89 'Measures to prevent damage to concrete by alkali-silica reaction (ASR)'.

Classification in accordance with CUR Recommendation 24
Non-Shrink mortar

Mortar sort		Grout
Mortar type		4 mm
Strength class	7 days	K 50
Exposure class		X0 t/m XA3
Swelling		> 0,1% < 2,0 %
Average shrinkage		< 0,75 mm/m

Cuglaton Hoogoven Gietmortel 4 mm is suitable for repair methods in accordance to NEN-EN 1504-3 table 1

4.4 Structural strengthening by adding mortar or concrete

7.1 Increasing cover to reinforcement with mortar or concrete

7.2 Replacing of contaminated or carbonated concrete

CE 0956	
CUGLA BV Rudonk 6a 4824 AJ BREDA 20 0956-CPR-0707	
NEN-EN 1504-3	
DoP: EM0051-24-04-2020	
Concrete repair mortar based on cement for structural application	
Compressive strength	Class R4
Chloride ion content	≤ 0,05 %
Adhesive bond	≥ 2,0 MPa
Carbonation resistance	NPD
Elastic modulus	≥ 20 GPa
Thermal compatibility (freeze and thaw, 50 cycli with salt)	≥ 2,0 MPa
Capillary absorption	≤ 0,5 kg/(m^2*$h^{0,5}$)
Dangerous substances	Comply with 5.4
Reaction to fire	NPD

Directions for use

Pre-treatment
The surface onto which CUGLATON HOOGOVEN GIETMORTEL 4 mm has to be applied needs to be clean.
The cement skin coating should be removed and no free water may be present.

- Pre-treatment with water.
  The surface must only be moistened with water (Please note: No free water!)

or

- Pre-treatment CUGLACRETE HECHTPRIMER CEMENTGEBONDEN or CUGLACRETE HECHTPRIMER EPOXY SEALER.
  For an optimum bond we advise the use of CUGLACRETE HECHTPRIMER CEMENTGEBONDEN, a cement polymer modified system, or CUGLACRETE HECHTPRIMER EPOXY SEALER, an epoxy-based system.

Mixing
Mechanically mix CUGLATON HOOGOVEN GIETMORTEL41 mm until it becomes a homogeneous mixture.
Mixing time depends on the type of mixer, approx. 3 minutes.

Water dosage
Water bandwidth: 2,2 – 2,6 ltr/20 kg mortar. Dose, within the indicated water bandwidth, with plenty of water so as to produce a mortar with a flow of approx. 450 mm.

Follow-up treatment
The finished surface must be carefully protected against dehydration with CUGLA CURING COMPOUND, or by covering with a plastic sheet.

Storage and shelf life
If stored in a dry place it has a shelf life of up to 6 months after production date, as stated on the packaging.

Health aspects

Cugla advises:

- To wear the correct gloves and goggles.
- 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.

For detailed information we refer to the safety data sheet, SDS Cuglaton Hoogoven Gietmortel 4 mm, on our website.

Cuglaton® does not contain any chlorine, nor any other corrosive substances. For application at temperatures < 0 °C please contact Cugla B.V.

Technical data at 20°C/65% RH

Property	Standard	Value	
Maximum grain	NEN-EN 12192-1	4,0	mm
Ground granulated blast furnace slag		> 50	%
Water bandwidth		2,2 – 2,6	ltr/20 kg
Exposure class	NEN-EN 206-1	X0 t/m XA3	
Layer thickness		120	mm max.
Density	NEN-EN 12190	2300	kg/m^3
Viscosity - Flowcone	t = 0 min	> 450	mm
Setting time		20	minutes
Air content	NEN-EN 12350-7	3,0	%
Compressive strength	NEN-EN 12190		
	1 day	15	N/mm^2
	7 days	55	N/mm^2
	28 days	65	N/mm^2
Adhesive strength after freeze and thaw (50 cycles with salt)	28 days	3,8	N/mm^2
	NEN-EN 12687-1	2,8	N/mm^2
Elastic modulus	NEN-EN 13412	38900	N/mm^2
Carbonation resistance		NPD	
Capillary absorption	NEN-EN 13057	0,12	$kg/(m^2*h^{0,5})$

Strength development ISO 679		48 hours	7 days	28 days
Flexural strength	N/mm^2	3	10	11
Compressive strength	N/mm^2	15	55	65