

## CUGLATON® WINDMILL GROUT 5MM

- CUGLATON WINDMILL GROUT 5 MM has been specially developed for casting wind turbines on land, where high strength is required.
- Due to the optimum composition CUGLATON WINDMILL GROUT 5 MM is particularly suitable for use where, in addition to a high initial strength also a very high final strength (K100/C110) is required.
- CUGLATON WINDMILL GROUT 5 MM is ideal for pumping.
- CUGLATON WINDMILL GROUT 5 MM is tested by Gottfried Wilhelm Leibniz Universität Hannover, Institut für Baustoffe and amply meets the fatigue requirements in accordance with CEB-FIP Model Code 90. Upon request the report is available.

Expert Investigation Report  
 on Cuglaton windmill grout concerning  
 fatigue design under pure compression



### Applications


<b>Civil and public utilities / prefab construction</b>	Grouting prefab concrete elements Casting gains
<b>Industrial construction</b>	Bonding of heavily loaded anchors
<b>Concrete construction and hydraulic engineering</b>	Grouting supports Bonding of anchors



### Classification mortar

<b>Mortar sort</b>	Grout
<b>Mortar type</b>	5 mm
<b>Strength class</b>	7 days K100
<b>Environment class</b>	X0 t/m XA3
<b>Shrinkage</b>	< 0,30 mm/m

### Classification according to NEN-EN 1504-6

 0956	
<b>CUGLA BV</b> , Rudonk 6a, 4824 AJ BREDA 16 0956-CPR-0707 NEN-EN 1504-6 DoP: EM0075-01-09-2018 Anchoring grout	
Pull out strength	≤ 0,6 mm at load of 75 KN
Chloride ion content	≤ 0,05 %
Reaction to fire	Class A1
Dangerous substances	Comply with 5.4

## Directions for use

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### Preparation

The surface onto which CUGLATON WINDMILL GROUT 5 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 WINDMILL GROUT 5 MM until it becomes a homogeneous mixture. Mixing time depends on the type of mixer, approx. 5 minutes. At all times, mix entire bags and do not add sand or cement to the product.

### Water dosage

Water bandwidth: 1,4 – 1,8 litres/20 kg mortar. Dose, within the indicated water bandwidth, with plenty of water so as to produce a mortar with a flow of approx. 650 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 12 months after production date, as stated on the packaging.

## Health aspects

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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](http://www.cugla.com).

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.

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Our general sales, delivery and payment conditions apply to all our transactions and are available at [www.cugla.com](http://www.cugla.com).

**Technical data 20°C/65% r.h.**

Eigenschap	Norm	Waarde	
Maximum grain		<b>5</b>	mm
Cement		<b>Portland</b>	
Water bandwidth		<b>1,4 - 1,8</b>	l/20 kg
Exposure class	EN 206-1	<b>X0 t/m XA3</b>	
Layer thickness		<b>300</b>	mm max.
Consumption per m3 approx.		<b>2150 - 2200</b>	kg
Density	EN 12350-6	<b>2350 - 2400</b>	kg/m <sup>3</sup>
Workability	EN 12390-16 t = 5 min	<b>&gt; 650</b>	mm
	t = 30 min	<b>&gt; 600</b>	mm
Initial setting time	ASTM C827/87	<b>30</b>	min
Compressive strength(20°C, RH 65%)	EN 12390-3 1 day	<b>80</b>	N/mm <sup>2</sup>
	7 days	<b>108</b>	N/mm <sup>2</sup>
	28 days	<b>123</b>	N/mm <sup>2</sup>
Tensile strength	28 days	<b>&gt; 14</b>	N/mm <sup>2</sup>
Adhesive strength after freeze and thaw (50 cycles with salt)	28 days	<b>3,20</b>	N/mm <sup>2</sup>
	EN 13687-1	<b>3,54</b>	N/mm <sup>2</sup>
Elastic modulus	EN 13412	<b>≥40.000</b>	N/mm <sup>2</sup>
Shrinkage	EN 12617-4 7 days	<b>&lt;0,25</b>	mm/m
	28 days	<b>&lt;0,35</b>	mm/m
Pull-out strength on a reinforcing steel bar with a load of 75 kN	EN 1881	<b>0,40</b>	mm
Capillary absorption	EN 13057	<b>&lt; 0,05</b>	kg/(m <sup>2</sup> *h <sup>0,5</sup> )
Long term shrinkage	Coutinho ring	<b>No cracks after 180 dagen</b>	

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

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