

Velosit NG 512

Product Information Page

Velosit NG 512 is a double shrinkage compensated cementitious with quick strength development grout for concrete substrates.

Velosit NG 512 surpasses the requirements of EN 1504-3 class R4 for concrete repair (CR) and can be used according to the principles 3, 4 and 7 acc. to EN 1504-9.

Specification Tip for Design Professionals:

Velosit NG 512 may be specified by name or by using the following description: a propriety double shrinkage compensated cementitious grout with quick strength development.

How does Velosit NG 512 work:

A chemical reaction occurs when Velosit NG 512 is mixed with clean potable water which produces a non-shrink grout, which has high flexural and compressive strength.

How do I prepare the surface before applying Velosit NG 512:

Substrate must be rough, open porous and load bearing. The minimum requirement for adhesive strength is 2.0 MPa (290 psi) and for the compressive strength 30 MPa (4350 psi). Before the application of VELOSIT NG 512, dampen the substrate with clean water to a saturated surface dry (SSD) condition 6 or 8 hours before application of the grout. Remove standing water puddles. Formwork should be liquid tight.



Application Fields:

- ✓ Grouting of machinery and construction columns
- ✓ Grouting base-plates station bases and crane rails
- ✓ Grouting between pre-cast units
- ✓ Anchoring of starter-bars
- ✓ Underpinning
- ✓ Repairs to large defects on concrete

Benefits:

- ✓ Excellent workability
- ✓ Wide range of water addition allowing Fluid or Plastic consistencies
- ✓ Can be placed in layers of between 12-125mm
- ✓ High early strength
- ✓ Fibre reinforced
- ✓ Advanced corrosion inhibitor technology
- ✓ Excellent adhesion to concrete and steel

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E: info@surfalogy.com

T: 01 832 1005

W: surfalogy.ie



Mixing: The total mixing requirement is between 3.3 and 4litres of clean potable water for 25kg unit of Velosit NG 512.

Place approximately 50% of the mixing liquid into a clean empty vessel. Slowly add the Velosit NG 512 powder whilst mixing with a mixing paddle fitted to a slow speed drill, add the remainder of the mixing liquid as required (maximum of 3.3 and 4litres per 25kg unit) and mix until a lump free mix is achieved.

Do not mix more material that can be placed within 15 minutes.

Do not Vibrate placed material, use wood or steel rods or chains to move the material and aid complete filling.

How do I apply Velosit NG 512:

Manual Application: Pour the mixed material from one side to avoid air entrapment, keeping a head on the grout to promote flow.

Pumping: Velosit NG 512 may be placed using a piston, ram or diaphragm type grout pumps, please contact our Technical Department for further information.

Note:

Velosit NG 512 should not be applied if temperatures are 5°C or below or are expected to fall below 5°C in the following 24 hours.

Storage: Velosit NG 512 should be stored in cool dry conditions and protected from frost and sunlight in unopened original packs.

Curing: Velosit NG 512 should be mist cured with clean potable water.

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TECHNICAL DATA:	
Appearance	Grey coloured powder
Application Temperature	>5°C
Adhesion to Concrete	≥ 2.5MPa
Requirement for repair products EN 1504-3 (Class)	R4
Compressive Strength	90MPa after 28 days
Density	1.7kg/l
Open time	15 minutes depending on temperatures
Setting time at 20°C	Beginning 140 minutes End 240 minutes
Flexural Strength	12MPa after 28 days
Fire rating EN1350-1	Class A1
Health & Safety	Contains cements. Protect eyes and prevent prolonged contact with skin. Keep out of reach of children For further information please consult the product MSDS.
Thickness per layer (mm)	5 – 50
Consumption (kg/m ² /mm)	1.83
Shelf Life	12 months from manufacture date

Disclaimer: The general information provided in the present technical description, application guidelines and other recommendations, is based on research and experience. However, the client is obliged to determine themselves what products are suitable for use. Accordingly, no liability will be accepted by IBC Limited t/a SURFASOLOGY™. For further information contact the SURFASOLOGY™ Technical Department.

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Unit 143, Grange Drive,
Baldoyle Industrial Estate,
Dublin 13, D13 W9V2,
Ireland

E: info@surfalogy.com

T: 01 832 1005

W: surfalogy.ie

