

GrowSeal™ Nano-brush Coat

nano-modified superior waterproofing coating

Incorporating Nanotechnology into Traditional Cementitious Waterproofing Coating

Introduction

Traditional cementitious waterproofing coating has low flexibility and poor bonding strength on concrete substrate. With the help and technology support of Nanotechnology, a novel cementitious waterproofing coating is developed to have high flexibility and excellent adhesion on the substrate.

Product Description

Growseal™ Nano-brush Coat is a nano-modified cementitious coating with high flexibility and superior adhesion is developed with the incorporation of nanotechnology. The coating can be directly applied on damp surface with no water leakage under 0.5MPa water pressure over 72 hours.

Uses

Growseal™ Nano-brush Coat is suitable for application to internal or external areas to provide a waterproofing and protective coating to:

- ◆ Swimming pools, decks and water features
- ◆ RC flat roof and gutters
- ◆ Balconies, terraces and planter box
- ◆ Bathrooms and Kitchens
- ◆ Basement walls and lift pits
- ◆ Potable water tanks
- ◆ Repairs concrete cracks

Advantages

- Pre-packed, Easy to mix and apply
- High flexibility
- Excellent adhesion to dry and damp sound substrates
- Excellent waterproofing quality-able to withstand high hydrostatic pressure 0.5MPa for 72 hours
- Formation of a more solid and durable coating with good mechanical performance
- Suitable for coating interior and exterior against water ingress and dampness
- Low VOC, Non-toxic, suitable for use in waterproofing potable water tanks
- Environmental friendly

Technical Data

Product Type	: Two component cementitious waterproofing coating
Mix Components	: A Milky white liquid emulsion B Fine grey powder
Mixed Ratio	: 1.0 part A + 1.5 part B
Mixed Color	: Concrete Grey
Mixing Procedure	: Mixing for 10 minutes (e.g. 8Kg part A + 12Kg part B)



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Application Data

Primer	:	1 coat of Growseal™ CCP Nano-modified Cementitious Crystalline Waterproofing Primer.
Coat	:	1 st layer: 0.5mm Dry thickness (Approx. 0.9kg/m ²) 2 nd layer: 0.5mm Dry thickness (Approx. 0.9kg/m ²) 3 rd layer: 0.5mm Dry thickness (Approx. 0.9kg/m ²)
Number of coats	:	3 layers
Consistency	:	Brushing or rolling
Over coating time	:	2 - 4 hours (over coating time may be varied by different temperature and humidity.)
Application temperature	:	Minimum temperature: +8°C Maximum temperature: +35°C (Please cool down the substrate with water before application if the temperature of substrate is over 40°C.)
Application humidity	:	60 - 95% (Do not apply when raining or when rain is expected before the coating has dried.)
Working life	:	At 20°C Approx. 40 minutes At 30°C Approx. 30 minutes (Exceeding the above time, the viscosity is too high for application.) 2% of D.I. water can be added with fast mechanical stirring for 3 - 5 minutes to dilute the slurry and improve its workability.

Key Features

Water permeability (BS EN: 12390-8, DIN: 1048 Part 5)	:	0mm (0.5MPa water pressure for 72 hours)
Tensile strength (ASTM D412)	:	≥ 1.5 N/mm ²
Elongation at break (ASTM D412)	:	350% - 450%
Bonding Strength (ASTM D4541 & BS EN 1542)	:	≥ 1.2 N/mm ²
VOC (USEPA method 24)	:	Type of regulated paint under the Air Pollution Control (Volatile Organic Compounds) Regulation < 20 g/L



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Method of Use

Repairs

Any necessary repairs should first be carried out to patch spalled/damaged concrete and to provide cover to exposed reinforcement. Holes and cracks must be filled up by repair mortar.

Preparation of Substrate

All area of the substrate should be cleaned to remove the grease, oil dust, paints, plastic and other loose particles since contamination on any traces of foreign material will have negative effect on the adhesion of the coating on the surface. New concrete should be cured for at least 14 days before application.

Mixing

Growseal™ Nano-brush Coat must be mixed using a drill fitted with a paddle for 10 minutes.

The liquid A should be poured into a clean dry mixing container and mixed using a slow speed drill fitted with a paddle. The powder B should be slowly added into the liquid with continuous mixing.

When all the powder B has been added, increase the mixing speed (800 – 900rpm) and mix for 10 minutes to achieve lump-free slurry. Wait for 2 minutes to release air bubbles on the surface before application.

Do not add water or more liquid that has been provided in the package.

Application

Growseal™ Nano-brush Coat can be directly applied on the dry / damp surface by roller or brush. Three coats are normally required; the second/third coat should be applied 2 - 4 hours after the previous coating in external area. Longer time is required in internal area or poor ventilation area before applying another coat. If the over coating time exceed more than 12 hours in dry area, apply some water to moisture the surface layer before next work.

Do not apply when raining or when rain is expected before the coating has dried.

The first and the second layer should be applied in cross direction. It is beneficial to reduce the air hole exist during the procedure.

Finally, spray with water to the surface of final coat to keep wet about 2 - 3 days.

For normal duty, it is required to apply at least 3 layers. For heavy duty (i.e. pool, tank), at least 4 layers are required.



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Cleaning of Tools

Tools and equipment should be cleaned directly after use with water. Do not allow the coating to harden before removing or cleaning.

Storage

Growseal™ Nano-brush Coat must be stored in a cool dry place free from contact with moisture and frost. This product has a 12 month shelf life stored in original unopened containers if kept at 10-30°C.

Packaging: 20kg/set in one plastic bucket (e.g. 8Kg part A + 12Kg part B)

Handling

Growseal™ Nano-brush Coat is non-hazardous, but protective clothing such as goggles, mask and gloves to prevent any affect as from prolonged skin contact, inhalation or ingestion are suggested. In windy condition, a filter mask should be worn to avoid inhaling dust. Keep out of reach of children. Remove splashes from skin with water and in case of eye contact wash copiously with water and if irritation persists seek immediate medical attention. For further information refer to the relevant Health and Safety Data Sheet.

We endeavor to ensure that any advice, recommendation or information we may give in product literature is accurate and correct. However, we have no control over the circumstances in which our product is used and it is therefore important that the end user satisfy himself by prior testing that the product is suitable for his specific application and that the actual conditions of use are suitable. GrowTech Limited reserves the right to change the properties of its products. Products are sold subject to our standard conditions of sale and each purchaser and end user should at all times ensure that he has consulted our latest product instructions and safety information.



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