

INNOV-FLEX

Acrylic Modified Cementitious Waterproofing Coating Technical Data Sheet



إنوشيم انترناشيونال ش.ذ.م.م

InnoChem International L.L.C.

Waterproofing & Insulation Materials

Product Description

INNOV FLEX is a two part acrylic modified cementitious coating for protecting concrete structures against ingress of water, vapor, and ingress of chloride ions. INNOV FLEX provides an effective barrier to waterborne salts and atmospheric gases. It cures to form a tough flexible coating having excellent waterproofing properties. INNOV FLEX is a blend of cement, selected fillers, polymers and graded silica sand, which is in the powder form. The liquid contains acrylic co-polymers and wetting agents.

Product Features

- Excellent Adhesion
- Flexible
- UV stable
- Resistance carbon dioxide and chloride ion diffusion
- Non-Toxic & can be used for potable water tanks
- Breathable – allows water vapour to escape from structure.
- Can be applied on damp substrate

Uses

Used as a waterproofing and protective coating for the following structures:

- Roof Waterproofing
- Wet Area waterproofing – Bathroom, Kitchen, Balcony
- Moisture barrier for marble/granite [back side]
- Protects exposed concrete substrates from carbonation and chloride attacks
- Waterproofing of water tank
- Foundation protection
- For filling pin holes in concrete substrates
- Moisture barrier for facades and inner leaf of cavity walls.

Application Instruction

The application temperature should be between 5°C to 45°C. Application procedures may vary slightly depending upon site conditions. The general recommended guidelines for the application of the coating system is as follows:

Surface Preparation

The surface must be structurally sound and free of oil, grease, dust and other contaminants, which will affect the bonding. Concrete surfaces should be cleaned using high pressure waterjet. Minor honeycombs and potholes up to 5 mm shall be repaired with INNOV FLEX mixed with reduced liquid to powder ratio to get a mortar consistency. The surface to be treated should be pre saturated with water prior to application. However, any standing water shall be removed.

Mixing

INNOV FLEX is supplied in two pre-measured parts which just requires on site mixing. Do not mix more material than that can be used within the pot life. Pour the liquid part into a metal /plastic drum of at least 20-liter volume. To this, gradually add powder whilst mixing the contents using a slow speed double shaft handheld mixer/drill (300-400rpm) fitted to a proprietary paddle mixer till a homogenous, lump free and creamy consistency is achieved.

DO NOT ADD WATER TO DILUTE THE MATERIAL

Application

It is recommended to apply INNOV FLEX in two coats to provide a minimum Dry film thickness of 2mm. Critical areas like pipe penetration and corners should be treated first. Apply one coat of INNOV FLEX by a brush on all corners and around the pipe penetrations, extending up to 200mm on either sides and carefully insert a fibre mesh/geotextile reinforcement into it. Apply a second coat over it and allow to dry. Then apply first coat of INNOV FLEX by brush or roller over the entire area 1.8kg/sqm. In case the area becomes dry, wet the surface again with water before applying the coating. A second coat is to be applied at right angles to the first coat 1.8kg /m² after the first coat is dry. The coating is to be left to cure for a minimum period of 72 hours . Flood test should be carried out only after 4 days.

Color

Grey/Off white

Cleaning

Clean all tools immediately with water after use. Hardened materials can be removed mechanically only.



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Technical Data

Properties	Test Method	Test Result
Mixed density, [g/cc]	ASTM D 1475	1.8±0.05
Pot life, [minutes]	-	45
Tensile strength, # [N/mm ²]	ASTM D 412	>8
Elongation, [%]	ASTM D 412	>50
Adhesion strength [N/mm ²]	ASTM D 4541	>0.5
Crack bridging [mm]	ASTM C 836	>0.5
Hydrostatic pressure @5 [50m]	BS EN 12390 [part 8]	No leakage
Toxicity	BS 6920	Nontoxic
Reaction to fire	ASTM E 84	Class A
Abrasion resistance # [mg]	ASTM D 4060	<75
VOC [g/l]	ASTM D 3960/D 2369	<50
Drying time [hours]	-	6-8
Full cure [days]	-	7
Service temp [°C]	-	5 to 70
Application Temperature [°C]	-	5 to 45

All values given are subject to 5-10% tolerance

values achieved with fiber mesh reinforcement

Coverage

1.8kg per m² per coat for 1mm dry film thickness.

Packaging

20kg kit
(Part A 15kg bag)
(Part B 5L pail, wt 5.0kg)

Storage and Shelf Life

Store under cover, out of direct sunlight and protect from extreme temperatures. It is recommended to keep the powder bags on pallets and away from moisture and humidity. Liquid should not be allowed to freeze. The shelf life is up to 12 months when stored as per recommendations and in unopened conditions. Failure to comply with the recommendations will result in premature deterioration of the product and reduce its shelf life.

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Limitations

INNOV FLEX should not be applied if the air temperature, substrate temperature or material temperature is greater than 45°C. This may significantly reduce the open time of coating. Do not proceed with application on external areas when rainfall is imminent. Do not apply over light weight concrete or foam concrete. INNOV FLEX should not be applied on external surface where aesthetic appearance is critical as the difference in drying rate may cause slight color differences.

Health and Safety

As with all construction chemicals products caution should always be exercised. Protective clothing such as gloves and goggles shall be worn. Treat and splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

Notes:

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control. Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields. Information on this datasheet is subject to change without notice and should not be used for writing specification. For additional information on specific applications, please contact InnoChem International LLC. The information contained herein, particularly recommendations for the handling and use of our products, is based on our professional experience. As materials and conditions may vary with each intended application, and thus are beyond our sphere of influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for their intended use. Legal liability cannot be accepted on the basis of the contents of this data sheet or any verbal advice given, unless there is a case of willful misconduct or gross negligence on our part. This technical data sheet supersedes all previous editions relevant to this product. InnoChem reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.



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