

INTEGRAL WATERPROOFING LIQUID ADMIXTURE FOR CONCRETE & MORTAR

Description

NIROPROOF IW is an integral waterproofing liquid admixture which is added to the concrete / mortar at the time of batching/mixing to resist the penetration of water through the capillary action or through water under pressure in the hardened state of concrete and mortar.

It also improves the workability of the fresh concrete and mortar.

Uses

NIROPROOF IW is recommended for use in structural and mass concrete, wherever waterproofing concrete / mortar is required, to minimize the permeability and increase the waterproofing property of water-retaining structures, like:

- ✓ Roof slabs and screeds,
- ✓ Basements,
- ✓ Reservoir and Dams
- ✓ Sewerage Works
- ✓ External plastering,
- ✓ Canals
- ✓ Culvert Tunnels

Advantages

- ✓ Improves resistance to water penetration by more than **3 times** in the hardened state of concrete and mortar.
- ✓ Liquid – disperses instantly throughout the fresh mix and produces uniform waterproofing property throughout the concrete and mortar matrix.
- ✓ Improves workability without increased water content
- ✓ Reduced efflorescence.
- ✓ Reduced sulphate attack
- ✓ Increased durability
- ✓ Improved pumpability, as it improves cohesion and reduces segregation of concrete
- ✓ Does not reduce compressive strengths
- ✓ Reduced shrinkage cracks in plasters.
- ✓ Low dose – cost effective.

Characteristics

Form	: Liquid
Colour	: Dark Brown
Relative Density	: 1.09 ± 0.02 at 25°C
pH	: >6
Chloride ion content	: Nil (As per BS 5075 Part I)

Standard Compliance

NIROPROOF IW complies with IS: 2645, IS: 9103, BS:5075 and ASTM-C-494 Type A.

Dosage

Optimum dosage of NIROPROOF IW should be determined by site trials only using the materials and conditions that will be experienced in use.

However, as a guide, a dosage range of 0.1 to 0.4% on cementitious material is recommended (depending upon mix design and cement content - higher the cement content lower will be the dose). Due to variations of ingredients in concrete, change of site conditions, and/or applications, dosages outside of the recommended range may be required. In such cases, contact our local representative.

Effects of under and overdosing

Under dosages will reduce waterproofing property of concrete / mortar and over dosage may cause increase in air entrainment, bleed/segregation of mix, and plastic shrinkage.

Direction for use

NIROPROOF IW is a ready-to-use liquid integral waterproofing compound.

- ✓ For maximum dispersion throughout the mix, measured quantity of NIROPROOF IW is to be diluted with water and to be mixed properly before addition in concrete / mortar.
- ✓ Ensure water / cement ratio and maintain water content as low as possible to achieve desired workability.
- ✓ Place and compact the concrete as quickly as possible.

Technical support

NIRMAN CHEMICALS provides technical advisory services for on-site assistance and guidance on mix design, optimum dosage evaluation of trials.

Compatibility

NIROPROOF IW can be used with all types of cements except high alumina cement.

It is compatible with all Naphthalene, Melamine, ligno- sulphonates and carboxylic acid base Admixture and retarders and also with most type of air entrainers, accelerators, viscosity modifying agent, extended set-control admixtures, corrosion inhibitors, and shrinkage reducers. Site trials should be carried out to optimize dosages.

Durability

Produces impermeable concrete, thus enhancing durability of concrete.

Corrosion

NIROPROOF IW neither initiates nor promotes corrosion as it does not contain any harmful chemicals. Rather it reduces the risk of corrosion of reinforcement or other embedment, as it produces impermeable concrete.

Packaging

NIROPROOF IW is supplied in 20 kg, 50 kg, 200 kg drums or in bulk on request

Storage and Shelf life

NIROPROOF IW must be stored where temperatures do not drop below +5°C. If product has frozen, thaw at +5°C or above and completely reconstitute using mild mechanical agitation. Do not use pressurized air for agitation. Store under cover, out of direct sunlight and protect from extremes of temperature.

Shelf life is 12 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

For specific storage advice consult our local NIRMAN CHEMICALS representative.

Safety precautions

NIROPROOF IW does not fall into the hazard classifications. However, it should not be swallowed or allowed to come into contact with the skin and eyes.

Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with the eyes it shall be rinsed immediately with plenty of water and medical advice sought immediately. If swallowed, medical attention shall be sought immediately - Vomiting should not be induced.

Fire

NIROPROOF IW is water based and non-flammable.

Cleaning of Tools

Clean all tools and application equipment with water immediately

Note

All Technical Data Sheets are updated on regular basis; it is the user's responsibility, to obtain the most recent issue.

Field services where provided, does not constitute supervisory responsibility, for additional information contact our local NIRMAN CHEMICALS representative.

Disclaimer

Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labor involved in the application are beyond our control.



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