

NIPPOMIX WP100 (formerly known as Nippon Admix WP100)

Updated Sept'22

DESCRIPTION

NippoMIX WP100 is a chloride free integral waterproofing admixture by crystallization supplied in the form of grey powder. It is added into concrete and cementitious mortar during batching, and hence reduce time and labour than other waterproofing methods. Its unique crystallization properties impart both self-healing and waterproofing properties for any concrete throughout its lifetime.

USES

NippoMIX WP100 is ideally suited for all below-ground, above ground and water-retaining structures such as:

- Basement, lining wall, ground beam, pile cap and etc
- Tunnel and pipelines
- Dams and Reservoirs
- Driveway deck and environmental deck
- Ground slab and suspended slab
- Lift Pit and sump Pit
- Marine
- RC water tanks
- Swimming pools, ponds and water feature
- Shotcrete

ADVANTAGES

- Able to withstand hydrostatic pressure >5 bars
- Can seal hairline cracks and static cracks up to 0.4mm
- Compatible with green materials such as slag, fly ash, silica fume and etc
- Facilitates faster back filler to help save cost and time
- Forms an integral part in concrete and long lifetime
- Protect concrete against aggressive soil chemicals and chloride attack to reinforcement steel from corrosion
- Easy and economy to apply
- No effect on setting time of concrete and water demand
- Odourless and non-toxic
- Low sulphide content
- Can be used in portable water tank

Product Type	Product	Pack Size	Finishing	Substrate
Integral Waterproofing (Crystallization Admixture)	NippoMIX WP100	20kg/bag	Grey powder	Concrete

Typical Technical Data

Suitable pH range	: 3 (acidic) - 11 (alkaline)
Water Penetration	: < 20mm (DIN 1048)
Water Permeability	: < 5.0 x 10 ⁻¹³ (DIN 1048)
Water soluble chloride by mass of admixture	: < 0.01% (BS EN 480)
Rapid chloride permeability	: Negligible (ASTM C1202)
Water absorption	: < 0.25% (BS1881)
Chemical resistant	: No effect (ASTM C267)
Sulfate content	: Complies to BS12

*All values given are subject to 5-10% tolerance

Application Method**Application**

NippoMIX WP100 is added into the concrete mix at the rate of 0.8% to 1.2% by weight of cement content. Dosage of **NippoMIX WP100** to meet with requirements must be assessed throughout the trial's mixes. To have best performance results, **NippoMIX WP100** must only be used in concrete that has been correctly designed which comply with water/cement ratio of less than 0.5 with adequate curing time. The recommended dosage rate for **NippoMIX WP100** is 1-3kg / 100kg of cementitious materials.

Batching and Mixing

The correct quantity of **NippoMIX WP100** should be measured based on approved mix design. Add **NippoMIX WP100** powder form to the drums of the ready-mix concrete truck. Mix the materials for minimum 5 minutes to ensure the **NippoMIX WP100** has been evenly distributed throughout the mix.

Joints

NippoJOINT (CJ and EJ series, refer to technical datasheet) must be provided in between construction joint and movement joint prior to the next pouring of concrete. For king post and pipe penetration joints, **NippoJOINT SWELL** must be installed around it prior to pouring of concrete.

Curing

All structural added with **NippoMIX WP100**, good curing practice must be executed. It is recommended to use curing compound such as Nippon Cure A or alternatively use polyethylene sheet, by spraying with water, covers by wet burlaps or any other means of preventing dehydration of concrete which caused drying shrinkage and cracking should be practiced.

Environmental Conditions During Application

- Apply temperature: 15-35°C. Do not apply when the surface to be coated is less than 3°C above the dew point.
- The humidity for application is 30-80%.

Storage and Transportation

This product should be 12 months shelf life from date of manufacturing when stored in original sealed bag in a cool, shaded and dry conditions.

Cleaning

Clean up equipment or tools with water immediately after use.

Safety Precautions

- Portland cement is alkaline when in contact with water
- Avoid prolonged contact with the skin
- Always use protective hand gloves, google and dust mask when handling or application
- Any eye contamination should be washed immediately with plenty of clean water and seek for medical advice
- Dispose off any waste in accordance with the appropriate Environment Quality Regulations

Note

The above information is given to the best of our knowledge based on laboratory tests and practical experience. However, since we cannot anticipate or control the many conditions under which our products may be used, we can only guarantee the quality of the product itself. We reserve the right to alter the given without prior notice