

FORMDEX ADMIX

CRYSTALLIZATION CONCRETE ADMIXTURE

DATA SPECIFICATION SHEET

DESCRIPTION

Formdex Admix is a crystallization waterproofing chemical admixture in powdered form used for protecting and waterproofing concrete structures. Formdex Admix is consist of Portland cement, fine treated silica sand and various active proprietary chemicals.

HOW DOES IT WORK?

Formdex Admix is added to the concrete mix at the time of batching. The active chemicals in Formdex Admix when combined with moisture in hardened concrete and the by-products of cement hydration will cause a catalytic reaction, which generates a non-soluble crystalline formations filling the naturally occurring capillary pores, micro cracks and voids within the concrete. These resulting crystal growth will permanently block the pathways for water even under high hydrostatic conditions.

AREAS OF USAGE

- Basements, Foundations and other structures in contact with soil
- Water Retaining Structures
- Tunnels, Subways and Underground structures
- Swimming Pools, Water Ponds and Water Features
- Retaining Walls

PRODUCT SPECIFICATION

COLOUR	: Grey
PACKAGING	: 20kg / bag
WATER TOXICITY (SS 375: 2001)	: Passed
ALKALI CONTENT (BS EN 196-2: 2005)	: < 1%
CHLORIDE CONTENT (BS EN 196-480-10: 2009)	: < 0.01%
MICROSCOPIC ANALYSIS AND CRACK SEALING ABILITY	: < 0.4mm
DRYING SHRINKAGE (ASTM C157/157M)	: Volume change < ±0.1%
PETROGRAPHIC ANALYSIS OF CONCRETE CUBE (ASTM C856)	: Presence of micro-crystalline
DETERMINATION OF pH VALUE (ISO 4316:1997)	: 9.9
WATER PENETRATION TEST (DIN 1048 Part 5)	: ≤ 12mm
WATER ABSORPTION TEST (BS 1881-122:2011)	: 0.8 %
COEFFICIENT OF WATER PERMEABILITY	: 2.47703 E-13 k(m/s)
RAPID CHLORIDE PERMEABILITY (ASTM C1202)	: Low

REQUIREMENTS:

GRADE OF CONCRETE	: min. G35 or higher
CEMENT CONTENT OF CONCRETE	: min. 350kg of Cement or Cementitious Materials
WATER CEMENT RATIO	: ≤ 0.45
SLUMP	: min. 125+/- 25 or higher

ADVANTAGES

- Becomes an integral part of the concrete
- Waterproofing is permanent
- Resists high hydrostatic pressure from either positive or negative side of concrete
- Self-seal hair-line cracks up to 0.4mm
- Allows concrete to breathe
- Impervious to physical damage and deterioration
- Reduces construction scheduling time
- Non toxic

APPLICATION

Dosage Rate:

For waterproofing concrete, the recommended dosage rate of Formdex Admix is 0.8% - 1.2% by weight of cement.

Mixing:

Formdex Admix must be added to the concrete at the time of batching. The sequence of procedures for addition will vary according to the type of batch plant operation and equipment. The following are some typical mixing guidelines.

Ready Mix Plant – Dry Batch Operation:

Add Formdex Admix in powder form to the drum of the ready - mix truck. Drive the truck under the batch plant and add 60% - 70% of the required water along with 140kg - 230kg of aggregate. Mix the material for 2-3 minutes to ensure Formdex Admix is distributed evenly through the mix. Add the balance of materials to the ready- mix truck in accordance with standard batch practices.

On Site Mix / Ready Mix Truck Operation:

Mix Formdex Admix with water to form thin slurry (eg. 3-3.5 kg powder : 2-2.5 litre water) to form a slurry and pour half of the amount into the drum of ready-mix truck. Mixed the concrete at maximum speed for approximately 2.5 minutes. Then pour the balance slurry into the drum and mix for another 2.5 minutes to ensure even distribution of Formdex Admix throughout the concrete.

Ready Mix Plant - Central Mixer:

Add Formdex Admix in powder form to the rock and sand, then mix thoroughly for 2 - 3 minutes before adding the cement and water. The total concrete mass should be blended using standard practices.

Note:

It is important to obtain a homogeneous mixture of Formdex Admix with the concrete. Therefore do not add dry Formdex Admix powder directly to wet concrete as this may cause clumping and thorough dispersion will not occur.

HEALTH & SAFETY

Read the product label and Material Safety Data Sheet (SDS) before use. Users should acquaint themselves with all risk and safety phrases.

Place Product
Sample Here

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Revision F

All data given and statements and recommendations made herein are base upon our research and experience and are believed to be accurate. However, no guarantee of their accuracy is made or applied. This data specification supersedes all other issues.