

FORMDEX ADMIX

CRYSTALLIZATION WATERPROOFING ADMIXTURE

ASIA'S LEADING
BUILDING PROTECTION
SPECIALIST





FORMDEX ADMIX

CRYSTALLIZATION WATERPROOFING ADMIXTURE

FORMDEX ADMIX IS A CHEMICAL ADMIXTURE IN POWDERED FORM USED IN THE WATERPROOFING AND PROTECTION OF CONCRETE STRUCTURES. FORMDEX ADMIX CONSISTS OF PORTLAND CEMENT, FINE TREATED SILICA SAND AND VARIOUS ACTIVE PROPRIETARY CHEMICALS.



SANDCRAWLER BUILDING - SINGAPORE

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 0.6mm
- Allows concrete to breathe
- Impervious to physical damage and deterioration
- Reduces construction scheduling time
- Non toxic

FORMDEX ADMIX consists 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 concrete and with the by-products of cement hydration to cause a catalytic reaction, which generates a non-soluble crystalline formation filling the naturally occurring pores and voids in concrete.

These crystals growth will permanently block the pathways for water even under high hydrostatic conditions.

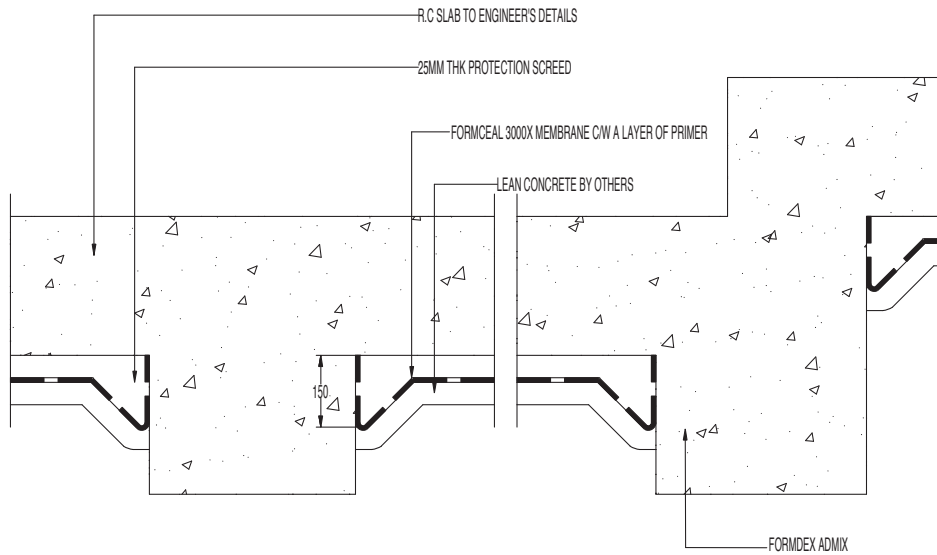
Formdex Admix can also be applied by slurry application and dry sprinkle.

AREAS OF USAGE

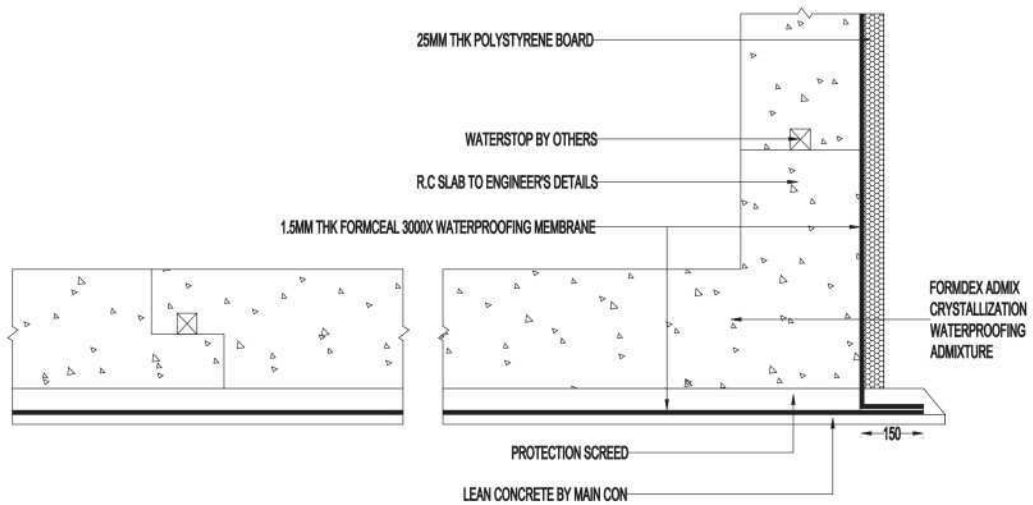
- Basement structures
- Water Retaining structures
- Tunnels & Subways
- Foundations

DIAGRAM OVERVIEW

BASEMENT WATERPROOFING



BASEMENT WATERPROOFING



WARRANTY INFORMATION

Only Hitchens' trained applicators are approved to undertake all application work. Hitchens products carry a long-term warranty for both materials and workmanship. The warranty is further backed by Hitchens International Fidelity Fund. Please check with our local applicators if this fund is available in your country. For complete warranty and other related information, please contact Hitchens regional offices.

APPLICATION

APPLICATION BY INTEGRATION INTO CONCRETE

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. 1 litre water : 2.5 kg powder) to form a slurry and pour half of the amount into the drum of ready-mix truck. Mix 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.

APPLICATION ON SITE

Surface Preparation

- Chase out all holes and voids and fill with appropriate patching non-shrinking mortar to provide a smooth, level surface. Mortar joints should be flush pointed.
- Remove contaminants on concrete surface by wire brushing and pressure washing.
- Pre-water or damp the surface prior to application

Installation by slurry application

- Mix **Formdex Admix** with water at water-cement ratio of 1:2.5
- Mix until a homogeneous slurry, free from all lumps is formed.
- Mixed materials should be used within 60 minutes. It can be slurred again when hard but do not add water again.
- Apply two (2) coats at 0.75kg/sqm/coat.
- Before applying the second coat in alternate direction, leave the first coat to dry approximately 1- 2 hours, recommended not more than 24 hours.
- If over-coating is done more than 24 hours after applying the previous coat, or the previous coat has already dried out, the surface must be pre-wetted again.
- Protect treated surfaces from rainfall, frost and puddling of water and requirements.

Installation by dry sprinkle application

- The surface does not need to be dry, but standing water must be removed.
- Remove all debris and laitance.
- Dry sprinkle evenly **Formdex Admix** @ 1.2kg/sqm throughout the area prior to concrete placement.

HEALTH & SAFETY

Spillage and tools should be cleaned with Kerosene or white spirit.

Revision C

All data given and statements and recommendations made herein are based 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.

MAJOR PROJECTS



AZ Building - Singapore



La Salle School - Singapore



DUO Residences - Singapore



Eight Riversuites - Singapore



Rohde & Schwarz Building - Singapore



Singapore University of Technology & Design - Singapore



North Point City - Singapore



The Nautical - Singapore



Watercolors - Singapore

APPLICATION & INSTALLATION



1. Weighing of Formdex Admix



2. Dosing onto conveyor belt



3. Concrete mixed in



4. Compacting concrete for slump test



5. Measuring slump test result



6. Preparation of concrete cube