



WATERPROOFING CONCRETE FOR LIFE

RADCRETE



RADMYX™ TECHNICAL ADVICE Overview

PRODUCT NAME

Radmyx™ Concentrate Capillary Waterproofing System

MANUFACTURER

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PRODUCT DESCRIPTION

Radmyx is a Capillary Waterproofing System in which active chemicals in Radmyx react with the by-products of cement hydration to form insoluble, fibre-like crystals. These crystals fill the cracks, pores and capillaries in the concrete – thereby effectively blocking the passage of water and resultant leakage through the concrete.

After crystallisation, the chemicals in Radmyx remain dormant in the concrete until subsequent contact with water reactivates the Radmyx sealing process.

- The Radmyx crystals move from their highest concentration to where they are needed most - where the water is present - to reactivate and stop leakage.
- In short: Radmyx always moves towards any water.
- It is osmosis that allows the Radmyx crystals to migrate through the concrete into the matrix of the concrete. Radmyx remains dormant in the concrete for the life of the structure. Any subsequent contact with water will reactivate the Radmyx sealing process.
- Radmyx concentrate is most often used as an admixture and is added to the concrete at the batching plant or by being placed directly into the concrete truck.
- Radmyx can be mixed with additives such as sand, cement and lime and used as an admixture, slurry coat, sprinkle coat or mortar.
- Radmyx is effective against positive or negative water pressure.



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EFFECT ON PLASTIC CONCRETE AND COMPATABILITY WITH COMMON ADMIXTURES

Radmyx concentrate can have a plasticising effect and may cause an extension of set times. The amount of extended set will be affected by mix design, climatic conditions etc. Consideration should be given to the reduction or removal of admixtures that retard such as plasticisers and water reducing admixtures.

If in doubt, trial mixes should be carried out to determine accurate set times.

Whilst there is no adverse affect on Radmyx from common admixtures used in concrete, as there are thousands of such products around the world, if in doubt carry out a trial mix.

DOSAGE

When used as an admixture Radmyx Concentrate is added to the concrete at the ration of 0.78 kg per m3.

WATER TO CEMENT RATIO

Water to cement ratios should be specified according to job requirements and will not generally affect the performance of Radmyx.

TRIAL MIXES

- Generally this test only needs to be completed for the first batch if following batches are to be the same quantities.
- Ideally the batch plant should reduce the quantity of water reducing admixtures, super plasticizers and retardants in the mix.
- A slump test should be taken before the addition of Radmyx.
- Radmyx Concentrate is then added to the drum of the concrete truck and rotated for a minimum of 10 minutes.
- A second slump test should then be undertaken – if the slump is not acceptable, then a small quantity of water or super plasticizer may then be added.
- A final slump test can be carried out if deemed necessary.

TEMPERATURES

Radmyx should not be added to concrete at temperatures below 5 degrees Celsius (about 40 degrees F).

RECYCLED MATERIALS

Radmyx can be used with recycled water and recycled aggregates.

STORAGE OF UNUSED RADMYX

Radmyx concentrate must be stored in an airtight container away from direct sunlight. If this is followed it can be stored indefinitely.

If Radmyx has been added to sand and cement to make a trowel on surface coat (slurry coat), the shelf life will be limited to 12 months.