

FAQ – Radmyx

HOW LONG DOES RADMYX CONCENTRATE LAST?

Radmyx waterproofing capability will last for the life of the structure. Radmyx concentrate consists entirely of active ingredients which continuously reactivate, meaning they will continue to work for the life of the structure.

WILL RADMYX PERFORM IN SITUATIONS OF HYDROSTATIC PRESSURE?

Yes, Radmyx will resist both positive and negative hydrostatic pressure. It has been tested to 5 bar of hydrostatic pressure according to European standards and meets EN 12390/8.

DOES RADMYX PROTECT AGAINST FREEZE AND THAW?

Yes. Because Radmyx prevents the ingress of water it protects the concrete against the effects of freeze and thaw.

WILL RADMYX RESIST CHEMICAL ATTACK?

Radmyx protects concrete from damage caused by most chemicals. As a general guidance, chemicals that are in a pH range of about 2.0 to about 12.0 are unlikely to affect Radmyx treated concrete. However, for details regarding specific chemicals please contact your local distributor.

DOES RADMYX PROTECT THE CONCRETE REINFORCEMENT?

Radmyx protects concrete from damage caused by most chemicals. As a general guidance, chemicals that are in a PH range of about 2.0 to about 12.0 are unlikely to affect Radmyx treated concrete. However, for details regarding specific chemicals please contact your local distributor.

IS RADMYX ENVIRONMENTALLY FRIENDLY?

Yes, absolutely. Unlike membranes which deteriorate and create enormous amounts of landfill, Radmyx remains part of the concrete forever. Radmyx contains no Volatile Organic Compounds (VOC's) and is completely non-hazardous.

IS RADMYX SAFE FOR POTABLE WATER?

Yes. Radmyx has been tested and approved for use with potable water.

IS RADMYX COMPATIBLE WITH OTHER ADMIXTURES?

Yes, Radmyx is compatible with most admixtures. However, like all crystalline products, 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.

Whilst Radmyx Concentrate can be used in conjunction with most admixtures, consideration should be given to the reduction or removal of admixtures that retard such as plasticisers, water reducing admixtures etc.

Whilst generally there is no adverse effect on Radmyx from common admixtures used in concrete, as there are thousands of such products around the world, a trial mix is recommended when using Radmyx Concentrate in addition to other admixtures.

WHEN IS RADMYX CONCENTRATE ADDED TO THE CONCRETE MIX?

Ideally Radmyx should be added at the batch plant however it can be added directly into the concrete truck. If added to the concrete truck after the addition of water, ensure that the mix is turned for a minimum of ten minutes prior to the addition of water.

Can Radmyx concentrate be applied directly to an existing concrete surface as a repair material?

Firstly, mix Radmyx concentrate with sand, cement and lime according to the datasheet before applying it as a slurry to a concrete surface.

WHEN USING RADMYX AS A REPAIR MATERIAL (I.E APPLYING IT AS A SLURRY), CAN IT BE APPLIED TO A WET SURFACE?

Yes. Moisture is required for the growth of crystals, so it is essential to dampen the concrete surface before the application of Radmyx slurry.

CAN RADMYX BE USED TO WATERPROOF CRACKS AND OTHER DEFECTS IN CONCRETE?

Yes. Radmyx is an excellent remedial waterproofing agent. Radmyx's crystalline growth will operate as a specific repair system to stop the ingress of water through most cracks and other defects to ensure a complete waterproof seal. However, Radmyx is not suitable for waterproofing dynamic cracks or movement joints. An elastomeric joint sealant will need to be used for these conditions.

IS RADMYX SUITABLE FOR USE ON SURFACES OTHER THAN CONCRETE?

Radmyx is suitable for all types of concrete surfaces including poured in place, pre-cast, or block concrete. It is not suitable for non-concrete building materials.

WHAT PROJECTS IS RADMYX COMMONLY USED ON?

Radmyx is traditionally used on below grade structures such as basements as well as reservoirs, tunnels, foundations, underground vaults, water tanks, sewage and water treatment tanks, car parks, swimming pools and foundations. It is also suitable for use on pre-stressed decks.

WHAT MAKES RADMYX UNIQUE AS A CONCRETE WATERPROOFING PRODUCT?

The environmentally sustainable crystal growth technology of Radmyx brings significant efficiencies and differences to the capability of concrete waterproofing. This technology ensures Radmyx has greater capability than traditional membranes and cementitious coatings.

- Radmyx crystalline structure integrates with the entire concrete matrix to ensure water penetration and chemical ingress is stopped.
- Radmyx reacts with the hydration products of cement to form crystals within the cracks, pores, and capillaries of concrete structures, effectively blocking the passage of water, to provide a 100% watertight seal for the structure.
- After the crystalline process has successfully waterproofed the structure the active chemicals in Radmyx remain dormant in the concrete. Subsequent contact with water will reactivate the regenerative crystal growth technology.
- Radmyx is completely resistant to hydrostatic pressure as it has no dependency on surface adhesion for its complete waterproofing capability.
- Radmyx is not subject to any form of deterioration. Radmyx is integrated into the very structure of the concrete. It is a permanent component which continuously reacts in the presence of water, thereby, providing lifetime protection to any concrete structure.

HOW MAY RADMYX BE UTILISED?

Radmyx, through its unique crystalline growth technology, can be used as an admixture (added at the time of concrete batching), as a coating (for new or existing structures), or as a dry shake mixture (for fresh horizontal surfaces).

WHAT ARE THE BENEFITS OF RADMYX AS OPPOSED TO MEMBRANES?

The crystalline growth technology of Radmyx provides many advantages over traditional membranes:

- Radmyx does not need a dry surface; in fact, a wet surface is a requirement.
- Radmyx can be applied in wet weather.
- Radmyx does not require costly surface preparation.
- Radmyx does not deteriorate, puncture, tear, or come apart at the seams.
- Radmyx does not need any protection during back filling, or during placement of steel, wire mesh, and other materials.
- Radmyx can be applied on both the positive and negative side of a structure.
- Radmyx does not need any form of sealing, overlapping and finishing of seams at corners or edges.

- Radmyx does not need reapplication, nor future maintenance, as it remains active for the life of the structure.
- Radmyx does not emit VOC's.
- Radmyx is less costly and more environmentally friendly as it never needs replacing!

WHAT IS THE RECOMMENDED RATIO FOR RADMYX AS AN ADMIXTURE?

The general dosage as an admixture is 0.78kg per cubic metre of concrete. Under special circumstances it may be necessary to vary this amount according to site conditions or design mix requirements.

WHEN DO YOU ADD RADMYX TO THE CONCRETE MIX?

Radmyx is best added to the dry mix at the time of batching, however, it can be added to the mixer on site. When added directly to the concrete truck it is essential to rotate the mix for ten minutes prior to pouring.

WHAT IMPACT DOES RADMYX HAVE ON THE STRENGTH, AND TEMPERATURE OF THE CONCRETE?

Radmyx causes an increase in compressive strength of the concrete. CSIRO testing in Australia showed that Radmyx caused an increase in compressive strength of between 15% and 20%. The temperature of the concrete is not affected.

WHAT EFFECT DOES RADMYX HAVE ON THE SETTING TIME OF THE CONCRETE?

Generally, all crystalline products, including Radmyx, cause some retardation of the set. For this reason, we recommend that consideration be given to the use of an accelerator when using Radmyx. Radmyx used with an accelerator complies with AS 1478.