

RADCON[®] FORMULA#7



Applications

PRECAST CONCRETE PARTS

Radcon Formula #7[®] is perfect for sealing precast concrete elements before they are installed in the respective structure. This saves enormous costs by saving time on the construction site. The result we get is extremely long-lasting structures, combined with the least amount of renovation work. In tunnel construction all the advantages of **Radcon Formula #7[®]** are particularly evident when sealing the individual tunnel segments.

Advantages

- Complete sealing before installation. This saves time and money on the construction site
- Durable structures
- Low renovation costs over the years



ROOFTOPS

Rooftops are critical applications that specifiers worry about. **Radcon Formula #7[®]** has reliably waterproofed thousands of roof decks in a multitude of climates.

Radcon Formula #7[®] is much faster and less risky to apply than traditional membrane systems. Once the reaction has occurred the rooftop will remain watertight and will not require maintenance in the future.

Key benefits:

1. No damage during the construction process.
2. No protection or topping required.
3. Problems easy to find and fix.
4. Sort site down time – treated areas can be used for work or materials storage.



FACADES

Facades either cast in-situ or rendered will benefit from a **Radcon Formula #7[®]** treatment by: sealing shrinkage cracks, stopping efflorescence and reducing permeability. Paints and other coatings may be applied over the treatment with no bond loss. Delaminating render may be re-bonded by **Radcon Formula #7[®]** injection.



CAR PARKS



Car Parks are an ideal application for **Radcon Formula #7®**. The fact that **Radcon Formula #7®** does its waterproofing below the surface level unlike a membrane means it cannot be damaged by traffic. By forming a gel in the cracks and capillaries, **Radcon Formula #7®** can accommodate thermal stresses arising from temperature changes from night and summer to winter in all climatic areas.

Key benefits:

1. 100% trafficability.
2. No protection or topping required.
3. Problems easy to find, isolate and fix.
4. Very short site down time.
5. Long-life.
6. Increases abrasion resistance by 30%.
7. Reduces Chloride Ingress and freeze/thaw damage by 89%.

WATERHOLDING VESSELS / POOLS



Radcon Formula #7® has been used to waterproof major waterholding vessels for nearly 30 years.

Unlike traditional membranes that generally are not receptive to constant water, **Radcon Formula #7®** is the opposite. When water is in contact with Radcon it improves the chemical reaction between **Radcon Formula #7®** and the calcium in the concrete, actually assisting its waterproofing abilities. This has meant that **Radcon Formula #7®** has been used on a wide variety of waterholding vessels over the past 25 years.

As well as waterproofing, **Radcon Formula #7®** prevents chloride ingress into the concrete and preventing corrosion of the steel, thus prolonging the life of these structures.

Radcon Formula #7® has been tested and approved for use with potable water in a range of different countries throughout the world. It has been used on many drinking water tanks in Australia, Asia, Europe and the Middle East.

It is completely non-toxic and has been used on aquariums with up to 40,000 fish and plant life in them.

BRIDGE DECKS



The numerous benefits of **Radcon Formula #7®**, including rapid application, full trafficability, protection of the concrete and reduced maintenance costs, make this a highly cost-effective sealant for protection buildings. Another big advantage is that the adhesion of the asphalt wearing course to the subsoil is not impaired.

Key benefits

1. Continues to waterproof for the life of the structure
2. Exposure to constant water improves **Radcon Formula #7®**'s performance – unlike most membranes which deteriorate
3. Fast to apply
4. Prevents leakage and chloride ingress
5. Safe with potable water
6. Non Toxic
7. Safe with marine and plant life
8. Resists hydrostatic pressure - has been tested to 400 metres.

MARINE

Chloride Ions Ingress is concrete's most destructive enemy. **Radcon Formula #7®** has a unique way of stopping them from causing reinforcement corrosion. Firstly, as water and chlorides enter the **Radcon Formula #7®** treated zone, the gel swells and stops further ingress. Secondly, the gel is highly alkaline which helps to maintain the alkalinity of the concrete which is important in maintaining the passive layer on the reinforcement. This gel seals cracks and microcracks that are would normally be direct paths for water and chlorides to attack the embedded steel.

Key benefits:

1. Reduces Chloride Ion diffusion by 89%.1.
2. Reduces water permeability by 70%.
3. Equivalent to reduction in w/c ratio of 0.1 to 0.2.
4. UV and Chloride resistant.
5. Seals both cracks and matrix.
6. Consolidation effect in the penetrated zone.
7. High Alkalinity maintains passivity to steel.



SPECIAL APPLICATIONS

Radcon Formula #7® is useful for a variety of applications. If the reaction conditions are suitable then **Radcon Formula #7®** will deliver concrete with greater resistance to imposed or environmental conditions and maintain waterproofing integrity. For instance, in tiled areas, **Radcon Formula #7®** can save up to 90% of the repair cost compared to traditional systems by treating the mortar joints rather than removing the tiles.

Further applications

1. Industrial Waste Plants
2. 3D-concrete printing
3. Shower Recesses and Areas
4. Pre-cast structures.
5. Cut & Cover Tunnels



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