



constructive solutions

CASE STUDY

Kirribilli Harbourside Carpark

Sydney, NSW

SPECIFIER Remedial Technology
CONTRACTOR Duratec Australia
SECTOR Commercial
DATE 2021

PRODUCTS

- Fosroc Renderoc HB40 Plus
- Fosroc Dekguard S
- Fosroc Nitoproof 510



More than 24,000 litres of Renderoc HB40 Plus helped return this underground carpark to safe service.

THE PROJECT

In an exclusive spot overlooking Sydney Harbour, this 1960s yacht club carpark includes a ground floor and top deck. The ground floor was impacted by significant concrete cracking and spalling caused by water ingress, carbonation and low concrete cover on the overhead soffit reinforcing bars.

A concrete remediation solution was needed to revitalise the carpark and ensure its safety for drivers and vehicles for years to come.

THE SOLUTION

Following a condition assessment, Remedial Technology reached out to Fosroc ANZ for specification advice.

To tackle the low concrete cover on the soffit, approximately 24,000 litres of Renderoc HB40 Plus was applied to reinstate the concrete and achieve an additional 12mm of cover. This high strength, high resistivity mortar is ideal for overhead repairs.

To avoid dust and noise complaints, hydro-blasting was used to remove the damaged concrete followed by wet spray application of the repair mortar.

Dekguard S was applied over the entire soffit area for additional corrosion protection. For the internal brick walls, water-borne epoxy Nitoproof 510 was applied to resist dampness.

THE BENEFITS

This specification delivered the following benefits:

Renderoc HB40 Plus

- Compatible with concrete strength in the range 25 to 50 MPa
- High strength, high resistivity – provides increased durability for structural repairs
- Shrinkage compensated – provides long term dimensional stability
- Low permeability to potentially damaging water, CO₂ and chloride ions
- High build formulation – wet spray enables even faster application
- Formulation based on supplementary cementitious materials
- Complies to EN 1504-3 Class R3.

Dekguard S

- Excellent barrier to carbon dioxide, chloride ions and water
- Allows water vapour to escape from the structure
- Highly UV-resistant aliphatic acrylic gives exceptional resistance to the effects of long-term weathering

Nitoproof 510

- Solvent free and very low VOC
- Anti-microbial formulation
- Compatible with damp substrates
- Excellent adhesion to concrete, brick and masonry (in this case brick)
- Compatible with most subsequently applied coatings, bonding agents, and water based adhesives
- Easy clean up using water



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