



constructive solutions

CASE STUDY

# Cape Naturaliste Lighthouse

South West WA

**CUSTOMER** Australian Maritime Safety Authority

**SPECIFIER** McElligotts

**CONTRACTOR** Marine & Civil Maintenance

**SECTOR** Government, Heritage

**DATE** 2019

## PRODUCTS

- Fosroc Renderoc LA55
- Fosroc Renderoc HB40
- Fosroc Nitoprime Zincrich
- Fosroc Nitofill LV
- Fosroc Nitoprime 120
- Fosroc Nitoband EJB Tape
- Fosroc Nitoproof 810
- Fosroc Nitoproof Top Coat UV



**In its exposed position in a highly corrosive environment, this working lighthouse required concrete remediation works before a full repaint. The balcony walkway needed a non-slip waterproofing solution.**

## THE PROJECT

The government asset manager tasked McElligotts with keeping the lighthouse's heritage features intact while lifting its appearance and protecting it well into the future. There was significant concrete cracking and spalling both inside and outside the lighthouse, including the balcony and floor support corbels.

## THE SOLUTION

A range of Fosroc and other Dulux Construction Solutions products were used in the concrete repair and repaint executed by Marine & Civil Maintenance.

**Step 1:** All damaged concrete was broken out.

**Step 2:** All exposed steel reinforcement was primed with Fosroc Nitoprime Zincrich to actively resist corrosion.

**Step 3:** Fosroc Renderoc LA55 was used for deep section patch repairs while Fosroc Renderoc HB40 was used for vertical and overhead repairs.

**Step 4:** The Fosroc Nitofill LV injection system was used to repair cracked concrete that did not require breaking out.

**Step 5:** The balcony walkway was primed with Fosroc Nitoprime 120, with Fosroc Nitoband tape used to seal critical movement zones. Two coats of waterproofing membrane Fosroc Nitoproof 810 were followed by two coats of Fosroc Nitoproof Top Coat UV.

**Step 6:** Emer-Clad Facade was used to waterproof and protect the facade surrounding the lighthouse beacon.

**Step 7:** Dulux Protective Coatings Durebild STE and Weathermax HBR were used to repaint the entire lighthouse.

## THE BENEFITS

Often used with Nitoprime Zincrich, Renderoc LA55 and Renderoc HB40 offer a proven system for high build concrete repairs. These repair mortars meet the requirements of EN1504-3 Class R4 and R3 respectively.

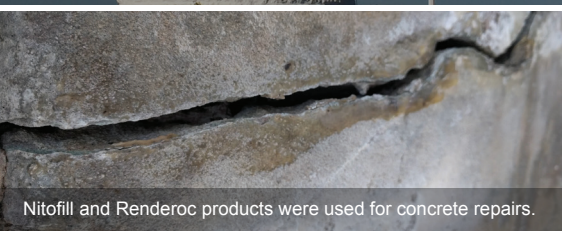
Nitofill LV is a cost effective and easy to use crack repair system. Its high strength, low viscosity formula allows penetration into the finest cracks and excellent bond to concrete and masonry.

For highly exposed walking surfaces, Nitoprime 120, Nitoproof 810 and Nitoproof Top Coat UV together deliver class P5 slip resistance.

The Fosroc team worked with Dulux Protective Coatings and Emer to provide a complete project solution.



The entire lighthouse was repaired and repainted.



Nitofill and Renderoc products were used for concrete repairs.



Nitoprime and Nitoproof products delivered P5 slip resistance.

AU 1800 812 864  
fosroc.com.au

NZ 0800 657 156  
fosroc.co.nz

**Parchem Construction Supplies Pty Ltd**  
1956 Dandenong Rd, Clayton VIC AUS 3168

**Concrete Plus Ltd**  
150 Hutt Park Road, Gracefield NZ 5010

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