

# Sealord FV Rehua

Main Freezer Floor, New Zealand (2012)

## BACKGROUND

Sealord Group, based in New Zealand is the country's largest supplier of processed seafood and exports to more than 60 countries worldwide selling more than \$400 million worth of seafood.

The main freezer floor in the hold of the FV Rehua needed repair. The floor is concrete over polystyrene; the freezer operates at  $-30^{\circ}\text{C}$  and the polystyrene acts as the insulation. When the ship off-loads its catch, the freezer room is washed down and when the ship goes back to sea the room is back operating, this constant freeze-thaw cycle caused the floor to spall. The concern of water working its way down into the insulation and holding water would lead to major issues later on, replacing this type of floor is a major cost.

Initially the team was looking at an epoxy coating (the generally accepted method for similar situations) but after discussion with Fraser Brown & Stratmore Limited, Kryton's Krystol Concrete Waterproofing products were selected for the job.

## SOLUTION

Kryton's Krystol T1 and T2 were selected over an epoxy coating because it has the ability to self-seal small cracks, it penetrates deep into the concrete and the waterproofing properties are not affected by surface wear or abrasion.

The floor was prepared by grinding, removing sealant from the joints and then washing to remove any oils etc. The surface was then brought to SSD condition and the first coat of T1 was applied. Due to the location at the bottom of the ship there was not a lot of air movement so a fan was used to move the air around in the hold overnight to harden the T1 layer without it drying it out too fast.

### OWNER:

Sealord Group

### ENGINEER:

Sealord Group

### CONTRACTOR:

Grant Marshall Ltd.

### DISTRIBUTOR:

Fraser Brown & Stratmore Ltd.

### PRODUCTS:

Learn more at [kryton.com](http://kryton.com)  
Krystol T1®/T2®



*The FV Rehua in port for service.*



*Brush applying Krystol T1 and T2 to the freezer floor.*

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This was repeated with two coats of T2. Wet curing was done over three days and then the surface was left to harden before the ship set sail.

The application and curing process took just over a week; and over 825 m<sup>2</sup> (8,800 ft.<sup>2</sup>) were coated with three coats of Kryton's Krystol T1 & T2 Waterproofing System.

For Sealord Group this method was a long-term, cost-effective repair, extending the life of the freezer floor. An epoxy coating, even if applied correctly, could be damaged, lift, or crack allowing water to work its way into the floor and causing more issues further down the line.



***The completed freezer floor.***



***Mixing Kryton products for the job.***