

GOLDSEAL GROUP

Rust Proof Services NZ (2005) Ltd
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APPLICATION TO SPALLING CONCRETE

Overview

Spalling of the concrete surface results due to the corrosive expansion of the steel reinforcing, which the inflexible concrete surround cannot accommodate. It releases tension by cracking and falling off, which eventually reveals the steel itself.

Early versions of this process were seen when beach sand was used in the concrete mix. The salts in the sand were in contact with the steel from the outset.

However dock faces and concrete wharf piles made under controlled conditions still suffer, due to the wetting of the concrete by wave action or rain diluting surface salt deposits, which both soak into the concrete.

At the molecular level it is easy for the ions to navigate the concrete matrix and attack the steel. Commonly this can be inhibited by silane treatment of the concrete, followed by a paint system, but once spalling has begun, this preventative method is too late and too costly.

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Why use Goldseal Industrial Rustproof

1. Goldseal is a high build pliable coating that is quite resistant to wave action
2. Being more of a wax derivative than either a paint or a grease it is quite water proof and self healing to damage
3. Goldseal is an accommodating coating that is not fussy about detailed surface preparation
4. It is rust killing where it comes into contact with steel
5. Sprayed on hot (70 deg +) it capillaries into cracks and cavities with out running and sets up a 300 micron coating in a few seconds
6. Although surfaces should not be soaking wet , they do not have to be completely dry
7. For applied cost on an ageing or damaged asset , the goldseal system is justifiable , quick and very cost effective.
8. The goldseal range of products is manufactured , applied and guaranteed by the Goldseal group. Details will vary according to application. The point being that if we can't do it well we won't do it. If we do it we will stand by our guarantee. We don't contract our work out.

Procedure

- Waterblast at 5000 psi to remove all loose concrete and rust scale and salts.
- Allow to air dry
- Apply a spot coat of Goldseal Industrial to cavities or exposed steel if necessary , depending on the application (applicator will make the call)
- Apply a full coat hot at 2500 psi over the complete concrete or exposed steel surface.

NB: -Goldseal is well proven in the field over a variety of substrates , containing its own wetting agents and corrosion inhibitors.

- The nature of the coating will exclude water vapour and oxygen
- Should any subsequent pieces of concrete become displaced , hand reinforcement of the exposed area is all that is required
- The hardness of goldseal can be altered to suit different applications or climatic zones