DRY-TREAT CASE STUDY

Port of Mackay

Location: Port of Mackay, Queensland, Australia

Contractor: Mackay Port Authority

Date: 2001-04

Surface Material: Engineering concrete

Product: DRY-TREAT 100N and DRY-TREAT CRÈME

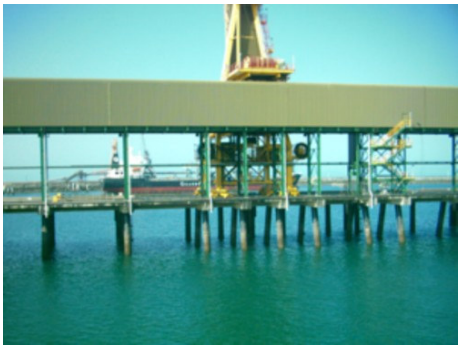
The MacKay Port Authority manages in excess of $140 million worth of assets each year through its air and seaports. This involves the berth area handling approximately 160 vessels, processing two million tons of goods including grain, sugar, iron concentrates, fertilizer and chemicals.

Berths four and five of the Port are made of reinforced engineering concrete. Berth Four is 155m long, 18.3m apron width and 8.5m above low water. Berth 5 is 165m long, 20m apron width and 9.5m above low water. Both berths are capable of handling vessels of 80,000 tons.

A suitable treatment was required to protect these valuable reinforced concrete structures from further chloride ion ingress caused by salt water spray and so save lifetime maintenance.

A long lasting, vapour permeable barrier was required to stop water-borne salts from penetrating the concrete. After washing down the concrete to remove loose surface matter and allowing it to dry, two coats of DRY-TREAT 100N were applied to all the exposed areas.

For concrete soffits (underneath the wharf) DRY-TREAT CRÈME was selected to lessen the chance of the sealer dropping into the water. The work was carried out by staff of the Port Authority and included sealing of the entire deck area and soffits, a total area of 15,000 square metres.



Both the sealers used are guaranteed to penetrate a minimum of four millimetres into the surface of the concrete and reduce chloride ion uptake by 95 per cent.

The treatment can also be applied to old or new concrete and is an excellent chloride ion screen, being equal to over 100 mm of extra concrete cover.