Maximum A.B.E. Protection For Ocean-Exposed Mauritian Wheat Silos

A special protective coating system supplied by a.b.e. Construction Chemicals was used for the repair of 16 massive wheat silos in the harbour of Port Louis, Mauritius.

Luis Ferreira, Business Development Manager: Exports for the Chryso Southern Africa Group – the holding company of a.b.e. – says a.b.e. durakote WB was applied in four coats to the 40 metre high silos of the leading Mauritian flour producer, Les Moulins de la Concorde Ltée. The towering silos, with a collective storage capacity of 40 000 tonnes, form a focal point and landmark of the Port Louis harbour. Adjcent to the concrete silos on Quay D is the Les Moulins de la Concorde mill to which the wheat is discharged from the silos for processing.

Ferreira says a.b.e. duracote WB (water-based) is a high performance flexible aliphatic acrylic polymer coating with high crack bridging properties. The system comprises duracote WB primer, a powerful penetrating organic carrier coat that incorporates acrylic resin and silane-siloxane molecules that form a reactive hydrophobic primer barrier coat that chemically bonds to the substrate. duracote WB itself is a pure aliphatic acrylic polymer protective topcoat with high elastomeric crack bridging qualities – the coating is capable of bridging a 0.3mm dynamic crack at 20 degrees Celsius. The system forms a durable, decorative, UV-stable protective coating that inhibits the passage of water and aggressive water-borne corrosive contaminants from entering the pores of the concrete silos.

"duracote WB is particularly suited to structures exposed to harsh, aggressive atmospheric conditions and was the ideal choice for the repair and waterproofing of the marine-exposed silos," Ferreira stated.

He said four coats of duracote WB was applied to achieve a 400 micron dry thickness on the silos. "Normally two coats offer sufficient protection but because of the silos being right next to the ocean, an additional two coats were specified and applied for maximum protection," he added.

Some of the other benefits of a.b.e.'s durakote WB system include:

- Forms a permanent barrier against the ingress of carbon dioxide, chloride ions, oxygen and water the main contributors to corrosion;
- Tough, durable, weather-resistant and UV-stable decorative coating suited to the most adverse conditions;
- durakote WB coating system has the ability to breathe and this allows water vapour to diffuse from the concrete pore structure;
- Improved dirt pick-up resistance;
- Low sensitivity to mould and algae growth; and
- Strong barrier to efflorescence.

"Finally, the system in addition to its protective qualities also provided a highly decorative finish so the refurbished silos are now an attractive feature in a harbour that receives dozens of luxury cruise liners every year," Ferreira added.

Ends

Caption:

Work in progress applying a.b.e. protection near the top of the towering wheat silos in the Port Louis harbour, and the fully repaired structures which are a focal point of the ocean gateway to Mauritius.

Ends

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