

Reinforced Concrete Wharfs & Piers

Repair, Protection & Waterproofing

Decks

Gem-Crete HDO is used as a thin overlay, typically 10-25 mm thick, but can be used thicker. When exceeding thickness of 25 mm, use 10 mm stone to extend the mix to reduce shrinkage and make it more economical. Gem-Crete HDO exhibits a high toughness, strength, impact resistance and abrasion resistance. It also stops chlorides and provides a waterproofing layer.

Adi-Con CSF (R) modified concrete is used in application thickness of 50 mm and more. It is used when a thicker concrete is required due to deep concrete deterioration. It exhibits high strength, waterproofing and stops chloride.

Superstructure

Fibre-Prime is used as rust-proofing on reinforcing steel in restoration or new construction

Fibre-Patch materials are used in small volume patching. Fibre-Patch ST can be also used for “thin” grouting (placement of the material by pouring or pumping into a cavity between the form and repaired concrete surface).

Spray-Con WS ST is used for larger volume repairs using wet shotcrete. This shotcrete method should be used whenever possible, since it provides a better compacted layer of material with high durability

Spray-Con DS ST is used when a dry process shotcrete must be used in situations where the repair material must be carried relatively long distances, typically in excess of 20-30 meters. It is highly recommended to clean the surface by high-pressure water and apply an additional protective layer of Cem-Kote ST to provide waterproofing of areas that do not have high enough density (sand pockets). This is critical in applications expose to freeze/thaw.

Adi-Con CSF (R) modified concrete is used in vertical repairs when a form casting placement of concrete is possible.

Adi-Con AWA in combination with Adi-Con SP 100 super-plasticizer, or Adi-Con CSF (R) is used when under water placement of concrete needs to be carried out.

Adi-Con AE 100 air entraining admixture is used for providing concrete with a high freeze-thaw resistance.

Adi-Con BA AC polymer modifier can be used when an economical, but still good performance mortar is needed for repairs, typically in horizontal applications.

Cem-Kote ST is used as a protective damp-proofing coating for reinforced concrete structures. There may be some special situation where an application of flexible **Cem-Kote Flex ST** or **Cem-Kote Flex Plus** may be considered. This would be in situations where crack bridging and high abrasion resistance are required.

The key products used in the repair of reinforced concrete wharf and piers are: **Gem-Crete HDO, Adi-Con CSF (R) and Spray-Con WS ST.**