



Repair of ridge reservoir at Shimla (Himachal Pradesh)

Region	Himachal Pradesh (India)
Type	Reservoir repair using epoxy bonding agent, silicate PU injection, polymer modified mortar & micro concrete etc.
Client	Shimla Jal Parbandhan Nigam Ltd.
Execution of the work	Renesco India Private Limited
Construction Period	2020 - 2021

Project Description

Built over 100 years back during the British rule and commissioned in 1924, the water tank has a capacity of 4.6 million liters per day (MLD) provides water to several parts of the city. Over the years, the water tank which lies under a part of the Ridge, has developed cracks in the walls of its four chambers. The cracks are a few millimeters deep but are widening with the passage of time, which can result in a huge disaster if not restored in time.

Scope of work

- Providing Design Drawing methodology for repair and maintenance of reservoir
- Steel reinforcement for RCC work
- Providing and Fixing of Non Return type packers
- Providing and Application of SILICATE PU FOAM with use of high pressure injection pump
- Application of long open lime epoxy based bonding-agent having mixed density of 1.48 Kg/litre compressive strength of 65 Mpa at 7 Days, one coat on old concrete
- Providing and applying pre-packed Polymer modified repair mortar, Pagel UI 0/U40 as per ASTM/ BS standards having comp strength of 45 Mpa, min at 28 days
- Polymer Modified Repair Mortar
- Providing and placing in position Micro-concrete as per relevant ASTM /BS/ IS having comp. strength of min. 45 Mpa at 28 days
- Making hole for shear connectors in concrete/masonry surface to any dia and depth as required at site by using driller with HY! 70, FIS360 chemical compound for inserting the reinforcement after drilling and air jet
- Providing and Laying two component Epoxy primer for preparing concrete surface before applying Elastomeric Pure Polyurea Coating
- Providing and Laying Flexible Elastomeric Pure Polyurea Coating in 2 coats to achieve 2mm DFT, with Two Component compete after Surface Preparation
- Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat
- 15 mm cement plaster on rough side of single or half brick wall of mix 1:4 complete in all leads and lifts

