



SIKA AT WORK

FRESH WATER STORAGE TANK, DESALINATION PLANT, VASSILIKO, CYPRUS

REHABILITATION: Sikagard®-720 EpoCem, Sikagard®-680 S Betoncolor
WATERPROOFING: Sikalastic®-841 ST

BUILDING TRUST



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PROJECT DESCRIPTION

Drought and lack of water has always been a problem that plagued Cyprus. Desalination plants have been operating on the island since 1997. In order to further strengthen the adequacy of the island in fresh water a new desalination plant was constructed at Vassiliko Power Station, which was delivered for operation in August 2013 and has a daily production capacity of 60.000 m³ of desalinated water.

PROJECT REQUIREMENT

Concrete tank for storing desalinated water, having a 1.500 m² total internal surface failed during its first filling. Concrete was cracked and water was leaking. Previous rehabilitation applications using waterproofing injections did not offer the desired results. Basic requirement was the waterproofing and anticorrosion protection of the tank's concrete with a system that would have both crack bridging properties and would be suitable for use with potable water. In addition, the down time before re-operation of the tank should be kept as short as possible.

SIKA SOLUTIONS

Originally the surface was prepared with sand blasting and the substrate was cleaned with high pressure water jetting, followed by micro-porous sealing and levelling with the 3-component, thixotropic, epoxy-cementitious mortar Sikagard®-720 EpoCem®. The substrate was primed with the 2-component epoxy resin Sikafloor®-161, followed by application of the 2-component, sprayed, pure polyurea based, liquid waterproofing membrane Sikalastic®-841ST. The 100% solid content membrane would serve as the main waterproofing layer and offer simultaneously protection and crack bridging. Application was performed using high pressure, hot spray equipment.

On the outer surface of the tank 1-component concrete protective coating Sikagard®-680 S Betoncolor was applied. It has high resistance against corrosive environment (coastal and industrial), in order to further enhance the durability of the concrete against aggressive atmospheric influences.

PROJECT PARTICIPANTS

Owner: Electricity Authority of Cyprus
Main contractor: IDE Technologies (ISR)
Subcontractor: JV Iakovou -GCC
Applicator: NCI Chemicals
Sika Distributor: Domochemica Ltd.
Sika Organization: Sika Hellas ABEE

Our most current General Sales Conditions shall apply. Please consult the most current local Product Data Sheet prior to any use.



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