

SIKA AT WORK HEAD SULEMANKI BARRAGE PROJECT

REHABILITATION OF HEAD SULEMANKI BARRAGE



HEAD SULEMANKI BARRAGE PROJECT

SIKA SOLUTIONS WITH TM CONCRETE PRODUCTS

Project:

Head Sulemanki Barrage is located on the River Sutlej near Okara, in the Punjab province of Pakistan. Sulemanki Barrage is used for irrigation and flood control. Being constructed in 1926 Sulemanki Barrage demanded rehabilitation and upgradation in order to facilitate the farming community in that area. Farming community of Okara, Pakpattan, Vehari and Bahawalnagar will directly benefit from rehabilitation of Sulemanki Barrage and Pakpattan Canal as agricultural economy will strengthen due to availability of water to a vast agricultural area.

Project Requirements:

The project costing a sum of eight billion rupees is expected to be completed in 2017. Completion of the project will ensure supply of water to 25 lakh acres of land which will benefit millions of families. Irrigation department required high performance construction chemicals to restoration the Barrage keeping in mind strategic importance. Client demanded cementitious, shrinkage compensated grout with high ultimate strength in order to meet the grouting purposes. In addition to cementitious grout, nonshrink epoxy grout was also demanded by the client for rebarring and repairing of concrete. Epoxy resin bonding agent was also demanded by the client for structural bonding from old to new concrete. Lastly, client demanded elastic joint sealant for sealing joints in building construction such as movement and construction/isolation joints.



Sika Solution:

Sika's competence and added value provides fully compatible repair and restoration systems in order to increase the life span of a structure. Sika's innovative solutions offers maintenance and renewal that makes ageing buildings and structures fit for the decades ahead. In order to meet the repair & restoration requirements of this project Sika suggested its globally recognized solution. SikaGrout-114 was suggested which is a cementitious, non-shrink precision grout with high ultimate strength. SikaGrout-114 was used for grouting of concrete anchors, cavities, gaps and recesses.





SikaGrout-114 is an economical and easy to use grout requiring only the addition of water. Sikadur-42 MP Slow was also suggested which a multi-purpose, non-shrink epoxy grouting system to be used for repairing of the concrete. Sikadur-42 MP Slow provides high-strength grouting and fixing of anchors, starter bars, base plates, mechanical joints etc. In addition to this, Sikadur-32 was recommended which is a epoxy bonding agent. Sikadur-32 provides a bond of far greater strength than the tensile strength of the concrete itself. Therefore it is suitable for use wherever structural bonding of new to existing concrete is carried out. Lastly, Sikaflex-Construction was suggested at the project as a polyurethane sealant for building joints. Sikaflex-Construction is a 1-part, moisture curing, elastic joint sealant suitable for movement joints and connection joints. Sikaflex-Construction (AP) is used as a general purpose sealant for sealing joints in building construction such as movement and construction/isolation joints around windows and doors, facades, claddings etc. in concrete, brick, wood, metal and PVC sections and structures etc. Sikaflex- Construction is also able to absorb the structural movements in the building and therefore ensure tight and durable joints.



Project Name: Head Sulemanki Barrage

Client: Irrigation Department

Consultant: SMEC

Contractor: Sino Hydro & Nishan

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