



SIKA AT WORK

DG KHAN CEMENT PRODUCTION UNIT HUB, KARACHI

SIKA SOLUTIONS FOR INDUSTRIAL UNITS

BUILDING TRUST



DG KHAN CEMENT PRODUCTION UNIT PROJECT HUB, KARACHI

SELF- COMPACTING ADMIXTURES, EPOXY INJECTIONS, PROTECTIVE COATINGS, CURING AGENT & SELF-LEVELING FLOORS

Project:

D.G. Khan Cement Company Limited, (DGKCC) is amongst largest the cement manufacturers of Pakistan with a production capacity of 14,000 tons per day (4.200 million tons/annum). DGKC is a part of Nishat which is a premier business group of Pakistan. DGKCC has four cement plants, two plants located at Dera Ghazi Khan and one at Khairpur Distt. Chakwal. With a view to expand its production capacity, DGKC choose the extreme south of Pakistan and opened its fourth cement plant at Hub, District Lasbella. This strategic expansion will offer physical presence in South region with better ability to cater this part besides a cutting edge for sea-route exports.

Project Requirements:

Company's products are preferred on projects of national repute both locally and internationally due to the un-paralleled and consistent quality. State of the Art project at Hub costed an estimated \$400 Billion. The project is one of its kind with a 9,000 tons per day single production unit in Pakistan. Sika offered various solutions at different stages of DG Cement's Hub plant project during its construction. Beginning from concrete admixtures to flooring products Sika provided Basement to roof one stop solution according to customer's requirements. Concrete admixture for high flow/self-compacting concrete was demanded for foundations with highly effective water-reducing agent and superplasticizer for concrete silos. In addition to this, curing agent was also demanded for silos. Water resistant Bonding agent was required by the client for cement plasters. High effective concrete additive for concrete silos was provided by Sika. Low viscosity injection resins for raw mill foundations were also needed at the project. Furthermore, client demanded a range of high performance flooring products at the project. Cementitious self-leveling floor screed was demanded before laying of substrates in conjunction with Sika primers for priming surfaces before the application of flooring and coving with the walls. Finally, Sika's self-leveling flooring solution at a thickness of 3mm was also offered. Lastly, protective coating was needed for for RO water tank at total area of 22,000 Sq.feet.



Sika Solution:

Sika offers world class solutions to its customers right from the beginning till the end of the project. Sika ViscoCrete-3110 was recommended to fulfill the need of Self-Compacting Concrete for Foundations. Sika ViscoCrete-3110 is a third generation superplasticiser for concrete and mortar. Sika ViscoCrete-3110 facilitates extreme water reduction, excellent flow ability with optimal cohesion and strong self-compacting behavior. Sikament®-512 PK was suggested for concrete of silos at the plant. Sikament®-512 PK is used as a highly effective water-reducing agent and superplasticizer for the production of high quality, free flowing concrete in hot climates. In addition to this, high performance concrete additive was provided to meet the need of an additive to concrete for silos. Sika Silicafume is condensed silica fume, which has been recovered from the exhaust gases of the ferrosilicon production.

Antisol-E 15 was recommended as a curing agent for silos. Antisol-E 15 is a liquid, paraffin based curing compound for preventing water loss in concrete. Antisol-E 15 is mainly used for structural concrete surfaces where subsequent surface treatment will not be required. Antisol-E 15 curing compounds are sprayed onto newly laid concrete surfaces to form a thin film barrier against premature water loss. Furthermore, Sika Bond DV is an economical water resistant bonding agent for mortar. It's a high quality emulsion that substantially increases the qualities of cement mortars. Sikagard -PW epoxy coating was suggested for RO water tank. Sikagard -PW is a high chemical resistant, non-toxic epoxy coating outstanding mechanical and chemical properties. Sika also offered its state-of-the art self-leveling flooring Sikafloor-264 is a two part, economic, coloured epoxy resin for different industrial uses i.e. storage and assembly halls, maintenance workshops etc. Sikafloor-264 was applied at a thickness of 1.5mm at a total area of 34,500 Sq.feet. In combination with self-level floors a set of flooring products were recommended i.e. Sikafloor-300 Level which is cement based self levelling compound for all substrates suitable for laying. Sikafloor-300 Level has a very low shrinkage and good self levelling properties. Sikafloor-300 was applied at a thickness of 3mm. Moreover, Epoxy primer Sikafloor-161 & Sikadur 506 were provided for priming and offering an intermediate layer underneath Sikafloor-264 and coving with the walls at 2625 running feet respectively. Lastly, Sikadur-52 LP Injection was recommended for raw mill foundations with Sikadur 31 CF Slow. Sikadur-52 Injection LP is used to fill and seal voids and cracks in structures. It not only forms an effective barrier against water infiltration and corrosion promoting media, but it also structurally bonds the concrete sections together.

Project Name: DG Cement Production Unit

Hub, Karachi

Project Owner: DG Cement Ltd.

Consultant: AA Associates

Contractor: Izhar Construction (Pvt) Ltd