



# **SIKA AT WORK**

## **METRO BUS MULTAN PROJECT**

SIKA SOLUTIONS WITH TM CONCRETE PRODUCTS

BUILDING TRUST



# METRO BUS MULTAN PROJECT

## HIGH STRENGTH CONCRETE ADMIXTURES, CEMENTITIOUS & EPOXY GROUT, BONDING AGENT & CRACK-RESISTANT FIBRE

### Project:

After successful mass transit projects e.g. Metro bus Lahore, Islamabad and Rawalpindi, Government of Punjab took initiative to equip the city of shrine with modern mass transit system. Over 18 kms Bus Rapid Transit (BRT) Metro Bus is a grand initiative by the Government of Pakistan to provide an efficient and affordable mode of transport to the residents of Multan city. Metro Bus project worth Rs. 3756 Million aims to facilitate a population of 48 Lac in Multan. This model of transportation system will benefit people from all walks of life by aiding the commuters throughout the city.

### Project Requirements:

Government of Punjab's initiative of a modern transport system in Multan offers safe, reliable and comfortable transport while saving time and fuel. In order to help Multan Development Authority achieve this goal Sika offered its globally recognized construction solutions at different stages during the project which included admixtures. MDA required high strength concrete admixtures in order to fulfill its compressive strength requirement of 6500 psi. In conjunction with concrete admixtures grout was also demanded by the client for foundations. Customer also required expanding grout admixture to be used in girders. In addition to this products were demanded for the grouting & repairing of the foundations & edges. Client also demanded Economical water resistant bonding agent for joints with special fibre for concrete reinforcement.



### Sika Solution:

Sika is known for its excellence in concrete technology all across the globe. MDA required concrete compressive strength of 6500 psi that also in time period of 28 days. Sika suggested its durable concrete admixtures to meet high strength requirement of this project. Sikament HRM was recommended which is a high range water-reducing and set retarding concrete admixture. Sikament-HRM is used as a highly effective water-reducing agent and superplasticizer for the production of high quality, free flowing concrete as it promotes accelerated hardening with high early and ultimate strengths.



SikaGrout-114 was suggested for the grouting of the foundations. SikaGrout-114 is a cementitious, free flowing, economical, non-shrink precision grout with high ultimate strength. Moreover, customer demanded Intraplast-Z which was used as an expanding grout in girders after post tensioning. Intraplast-Z is a ready to use injection aid in powder form. Intraplast-Z causes the cement mixture to expand before setting. The swelling is caused by the extremely regular formation of densely distributed tiny gas bubbles consisting of inert hydrogen. These very tiny pores give the set material a high degree of frost resistance. In order to meet the repairing & grouting needs Sika recommended Sikadur-42 MP Slow for high strength grouting & repairing of foundations & edges. Sikadur-42 MP Slow is a multi-purpose, moisture tolerant, epoxy grouting system. In addition to this, Sika suggested Sika Bond DV its economical water resistant bonding agent which was used for joints of old to new concrete. Sika Bond DV is a high quality emulsion that substantially increases the qualities of cement mortars in different applications. Sika Bond DV is a synthetic rubber emulsion for adding to cement mortars, where good adhesion and water resistance are required. Lastly, Sika Fibre-12 was recommended for concrete reinforcement and non-shrink of concrete. Sika Fibre-12 is a high quality, 100% virgin polypropylene fibre that reduces the occurrence of plastic shrinkage and plastic settlement cracking whilst enhancing the surface properties and durability of a cementitious matrix.



**Project Name:** Metro Bus Multan Project

**Client:** MDA (Multan Development Authority)

**Consultant:** Osmani & Company

**Contractor:** ZKB (Zahir Khan & Brothers)

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