

Project: Zuari Cable Stayed Bridge

Location: Tiswadi, Goa, India

Project completed: Ongoing

Owner/s: Ministry of Roads, Transport & Highways (MoRTH)

Applicator/Contractor: Dilip Buildcon Limited

Designer/Architect/Specifier: TPF Consultancy

Market sector: Infrastructure

Products used:

MasterEase 3702 MasterLife Cl 220 MasterBrace 1441 MasterPolyheed 8731 MasterKure 185 MasterKure 107WB

Zuari Cable Stayed Bridge, Goa The Second Longest Cable Stayed Bridge in India



Our reference in Goa (India): Zuari Cable Stayed Bridge

The background

Zuari Cable Stayed Bridge has 8(4+4) lanes with 27m wide dual carriageways and a center median of 10.7m. This makes the bridge the second longest and widest cable stay bridge in India.

The existing two-lane bridge is being upgraded to facilitate the movement of HCVs, therefore, decreasing the commute by 40kms. Being a magnet for tourism, an observatory has been planned on top of the bridge tower together with an art gallery at 120m above sea level.

The challenge

Zuari bridge is located in one of the most corrosive climates in India, being very close to the sea. Corrosion-inhibiting admixture needed to be used in the concrete to protect steel from corrosion and to ensure long-term durability.

Concreting will be carried out by pumping through a pipe from the embankment using two cranes established on each side for the construction of two 120m high concrete pylon structures. Hence MasterEase was suggested to make pumping, placing, and finishing easier.

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Zuari Cable Stayed Bridge, Goa

The Second Longest Cable Stayed Bridge in India





Our reference in Goa (India): Zuari Cable Stayed Bridge

Projects facts at a glance

- Second longest and widest cable-stayed bridge in India.
- 4+4 lane dual carriageway at 14m high from water level with 100m high pylons with lights and colored cable stays.
- A tourist observatory gallery and museum are planned at the 110m high tower on the bridge.
- INGEROP (France), Infinite Civil Solutions Pvt Ltd, and Multimedia Consultants are the design consultants for this project.
- Mostobudivelnyi Zahin Ltd is the technical partner, offering their support in the design and technical matters.

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Our solution

MasterLife CI 220 offers dual corrosion protection, for concrete and steel, making it an effective corrosion inhibiting admixture.

MasterEase 3702 imparts exceptional rheological properties to fresh concrete, therefore, improving the pumping, placing, and finishing of concrete.

MasterBrace 1441 is an epoxy bonding system consisting of two parts that are distinctively colored to facilitate proper mixing- used for bonding rigid precast segments in bridges.

The customer's benefit

- MasterLife CI 220 reduces the rate at which chlorides, gases, and moisture enter the concrete and inhibits corrosion at its most critical points.
- MasterEase 3702 improves the rheological behavior of concrete thereby reducing fines and minimizing vibration due to moisture content.
- MasterBrace 1441 provides a watertight seal to the joints and offers high bond strength.
- MasterKure improves moisture retention in concrete and reduces shrinkage cracks.