

Project:

Zuari Cable Stayed Bridge

Location:

Tiswadi, Goa, INDIA

Project completed:

Ongoing

Client:

Ministry of Roads, Transport & Highways (MoRT&H)

Contractor/Agency:

Dilip Buildcon Limited

Authority's Engineer:

TPF Engineering Pvt. Ltd

Design Consultant:

Dr Erwan Vicat, INGEROP
French Jv with Infinite Civil Solution

Market sector:

Infrastructure

Products used & amounts:

MasterEase 3702

Master Life CI 220

MasterBrace 1441

Master Polyheed 8731

MasterKure 185

MasterKure 107WB

ZUARI CABLE STAYED BRIDGE, GOA

The Second Longest Cable Stayed Bridge in India



Zuari Cable Stayed Bridge, Goa, India

The background

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

The existing 2 lane bridge is being upgraded to facilitate movement of LMVs 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 the 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 has been used in the concrete to protect rebars from corrosion and to ensure long-term durability.

Concreting will be carried out by heavy pumping equipment through pipelines from onshore to pile cap, from pile cap using two cranes established on each side for the construction of four 120m high concrete pylon structures. Hence MasterEase was suggested to make facilitated pumping to place at highly congestion reinforcement, placing and finishing easier.

Contact:

Master Builders Solutions India Private Limited

Email: construction-india@mbcc-group.com

Zuari Cable Stayed Bridge, Goa

The Second Longest Cable Stayed Bridge in India



Zuari Cable Stayed Bridge, Goa, India

Our solution

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

MasterEase 3702 imparts the rheological properties to fresh concrete, improving pumping, placing and finishing of concrete. MasterBrace 1441 is an epoxy bonding system consisting two parts that are distinctively colored to facilitate proper mixing- used for bonding rigid precast segments in bridge.

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 rheological behaviors of concrete thereby improving flowability and easy to place even much congestion of reinforcements. Enhance the SCC to reach the required distance of flow without change of homogeneity.
- MasterBrace 1441 provides watertight seal to the joints and offers high bond strength
- MasterKure improves moisture retention in concrete and reduces shrinkage cracks

Further information is available at:

Email: Construction-india@mbcc-group.com

Website: <https://www.master-builders-solutions.com/en-in>

Projects facts at a glance

- Second longest and widest cable stayed bridge in India.
- Design Consultant Dr Erwan Vicat INGEROP (France), Infinite Civil Solutions Pvt Ltd and consultant Dr. Dewei Chen, Tongji University.
- 4+4 lane dual carriage way at 14m high from water level with 100m 8 number of pylons with lights and colored cable stays.
- Tourist observatory gallery and museum planned at 120m high tower in the bridge.

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