

JIALING JIANG

RAILWAY BRIDGE



FEATURED PRODUCTS

Series 27WB Typoxy

Series 1028 Enduratone

When it came time to coat the steel on the Jialing Jiang Railroad Bridge, the Chengdu Railway Bureau needed a two-coat coatings system that could be applied without harming the passing trains and the river beneath. In the past, the owner had used an alkyd topcoat, but it exhibited adhesion issues and was troublesome when applying, often falling down onto the passing trains.

Tnemec's distributor in China recommended a low-VOC, water-based coatings system for the bridge's steel to help reduce the potential for overspray issues and environmental damages. Since the railway could not be taken out of service, this two-coat system would offer the best viable solution to coating the overhead structural steel.

More than 161,000 sq. ft. of steel was first prepared onsite in accordance with SSPC-SP6/NACE No. 3 Commercial Blast Cleaning. After the steel was prepared, Tnemec's Series 27WB Typoxy, an innovative, inorganic hybrid water-based epoxy coating, was spray-applied to the substrate. This low odor and low VOC coating features HydroLink curing technology for durability and corrosion resistance and rivals the performance of other solvent-based epoxies. Series 27WB was applied at approx. 6.0 mils (150 microns) dry film thickness (DFT.)

The system's finish coat, Series 1028 Enduratone, was then spray-applied at 2.0-3.0 mils (80 microns) DFT. Series 1028 was chosen for its aesthetic and protective qualities, known to exhibit very good gloss and color stability in exterior exposure environments, and the acrylic polymer coating also exhibits "dry-fall" characteristics in the proper conditions, making overspray-related problems limited.

The railroad bridge remained in service during the application process and the steel's appearance and durability now matches its strong surroundings. The bridge crosses over the Jialing River in the Sichuan Province, which is a tributary of the longest river in Asia, The Yangtze.

After seven years in service, the bridge was inspected in 2018 by a technical professional and the water-based coatings have out-performed other solvent-based projects in the area.

PRODUCT DATA SHEET

Project Location

Sichuan, China

Project Completion Date

October 2011

Owner

Chengdu Railway Bureau
Guangyuan, China

Field Applicator

CRCC
Beijing, China



The Jialing Jiang Railway Bridge project utilized a water-based coatings system from Tnemec to coat all of its exterior exposed steel.