

# COMPOSITE REPAIR SPECIALIST



- **TYPE OF DEFECT :** CATENARY SUPPORTS SUFFERING FROM 80% OF CORROSION
- **LOCATION :** FRANCE
- **3X PRODUCT :** REINFORCEKIT® BEAM
- **CLIENT :** SNCF (FRENCH NATIONAL RAILWAY COMPANY)

## OVERVIEW

The objective of the repair performed in May 2015 by 3X ENGINEERING was to **reinforce 15 corroded catenary supports of 50 years old situated on a railway line in the South of France.**

## SCOPE OF WORK

- The repair has been designed using modelisation and finite element simulation.

- First of all, the bases of the structures have been properly prepared to receive REINFORCEKIT® BEAM product (vegetation cleaning around the support, water removal and support drying ...)

- The beam reinforcements have been performed following several steps :

**1/** Surface preparation with sandblasting to get a good surface roughness (60-micron surface profile).

**2/** 3X filler application at the base of the structure for sealing the junction between concrete and beam.

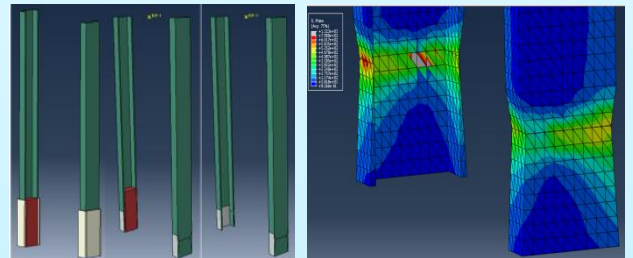
**3/** Metal inserts preparation and application.

**4/** Composite reinforcement wrapping using Kevlar® and 3X specific resin around the base of the structure.

**5/** Special coating application to protect the repair against UV & impacts and reference plate installation for traceability.

## RESULTS

Based on its experience acquired since 2011 in the transport industry, 3X Engineering has been able to restore the integrity of all damaged beams **without stopping train traffic**. This accurate implementation needs to be performed with high-qualified applicators and top quality products. Since the launch of this product over a thousand of supports have been renovated successfully.



For more information about our operations and range of products, please contact us at :

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