ZINGA®

RW RAILWAYS

REFERENCES


AUSTRALIA

# ZINGA® ON RAILWAYS

**Rail corrosion, particularly at the base of the rail, is a serious problem in railway transit systems.**
**Rail base corrosion compromises the integrity of the rail and could result in catastrophic failures.**

Modern railway systems are subject to use with fast trains and large loads. The primary requirement is structural integrity, which determines the suitability of steel for rail track applications. It depends on interactions between engineering parameters, material properties and the environment.

Corrosion of rails has been recognized as one of the serious causes of damage to railway track. The corrosion of rail along with cyclic loading may lead to corrosion fatigue failure of the railway track. Cases of failure of rails have come to light at load much below the safe load mainly due to deterioration of rail as a result of corrosion. Railway track comes close to different environments during its service life, like seacoast environment, various humidity of the atmosphere, different temperature of the atmosphere and tunnel area, which is acidic in nature. Strength of the rail material changes with the change in atmosphere.

A rail coated with ZINGA can withstand harsh coastal conditions or corrosive railway tunnels, expanding the lifetime of the railway tracks.

## ROMPETROL (ROMANIA)

In November 2009, ZINGA was used to protect 70 railway freight carriages from 'Rompetrol' against corrosion.
The wagons are used for bulk transport of coal or sulphur.

On each of these 70 railway wagons 80 kg of ZINGA was consumed.
120 µm DFT in 2 coats of each 60 µm DFT were applied by airless spray gun by the contractor 'General Navorep'.

Whilst the original coating failed within 6 months after application, the ZINGA system was evaluated after 1 year and was in excellent condition.

## REFERENCES

- **AUSTRALIA** - Corduroy Bridge, Queensland Rail Bridges
- **BELGIUM** - Cita Railway Wagon, De Lijn Electricity Poles
- **BRAZIL** - Dorbras Railway Company
- **CAMEROON** - Camrail Wagons
- **CHINA** - Maglev Transrapid Railway, Yuehai Passage Train Terminal, Chongqing Monorail
- **FRANCE** - SNCF
- **ROMANIA** - Rompetrol
- **SAUDI-ARABIA** - Mashair Railway
- **TOGO** - SNPT Railway Bridge
- **UNITED KINGDOM** - London Underground

**ZINGAMETALL BV-SRL**
Industriepark
Rozenstraat 4
9810 Eke (Belgium)
T. +32 9 385 68 81
info@zinga.be
www.zinga.eu

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