

## Case Study: Increasing Lifetime of Guide Plates for Drawhook



### Customer Profile

TX Logistik: one of Europe's leading logistics rail companies operating over 20,000 trains in 9 European countries.

### Problem

Thermoplastic guide plates suffer extreme wear after only 3 months of use.

### Technical Challenge

Increase wear life of draw-hook guide plates.

### Solution Used

RAILKO NF21: fibre reinforced, thermoset plate.

### Result

RAILKO NF21 guide plates show minimal wear after 7 months, 90,000 km of dynamic use.

In 2016, German customer TX Logistik identified that thermoplastic guide plates for drawhooks suffered extreme wear after only 3 months use.

RAILKO NF21 was chosen due to its long life, low friction, and superior strength under high load.

RAILKO NF21 guide plates for the drawhook were installed onto ten T3000 wagons on 14/06/2016. Wagons using NF21 were tested against ones using thermoplastic plates.

The wear on each liner was recorded after a distance of 50,000 km and 90,000 km. This represents 7 months of dynamic wear.



Available on stock



Wear Protection



Cost Efficient



Time Savings



Increased Lifetime



Tested and Approved

# Conclusions:

- ✓ RAILKO NF21 guide plates show minimal wear after 90,000 km
- ✓ Surface of RAILKO NF21 plates remains in good condition across 90,000 km
- ✓ Valuable drawhook is better protected from wear thanks to self-lubricating RAILKO NF21
- ✓ RAILKO NF21 does not corrode the drawhook

TENMAT is approved and specified by all leading railway authorities and private wagon owners.

This includes Deutsche Bahn, SBB, ÖBB, SNCF, RENFE, British Rail, as well as VTG, AAE, Eurotunnel, Ermewa / CTC, Wascosa, CTX Rail, PKP, Eiffage Rail.

RAILKO hook guide plates are used to support the draw hook on the wagon body. It is important to have a material which provides excellent dimensional stability and long service life. The reinforced matrix structure of RAILKO NF21 withstands even the most abrasive of environments.

# Test Results:



*after 50,000 km*

## RAILKO NF21



stay in top condition  
continue to perform



*after 90,000 km*



## Thermoplastic Competitor "F"



extremely damaged  
must be replaced



*Above photos "thermoplastic competitor F" display typical results using thermoplastic plates from a similar TXL test, where after a specific point the plates rapidly deteriorated and suffered severe damage (as shown in photos)*

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