



# Ballast Stabilisation - Revolutionising Railways

Trackbed with lower underlying costs with Tensar® TriAx® TX190L

- ▶ Significantly delay sleeper settlement
- ▶ Extend maintenance cycles by around 3 times or more
- ▶ Reduced life cycle costs





# Reducing Ballast Deformation through the Mechanical Stabilisation of the Ballast Layer



Tensar TriAx TX190L geogrid can be used to:

- ▶ Reduce the rate of ballast settlement
- ▶ Maintain track geometry for longer
- ▶ Extend the maintenance cycle by a factor of about 3
- ▶ Reduce life cycle costs in terms of “cash and carbon”
- ▶ Allow the use of recycled ballast

*Tensar TriAx TX190L geogrid installed at a rail project in Bratislava, Slovakia 2012.\**

## Trackbed with lower underlying costs with Tensar TriAx TX190L

Mechanical stabilisation of the ballast layer using Tensar geogrids has been shown to reduce the rate of track settlement and therefore increase the period between maintenance operations with whole life benefits.

During the last 30 years, the various laboratory studies and full scale trials have enabled Rail Engineers to use Tensar geogrids in ballast with confidence.

Ballast stabilisation using Tensar geogrids is well proven, easy to install and represents value for money when compared with other methods of improving trackbed stiffness.

The introduction of Tensar TriAx TX190L with its larger aperture to match coarse granular fill, allows this advancement in geogrid technology to be used in ballast stabilisation.

*\*In 2012, Tensar TriAx TX190L geogrid was included in the reconstruction of a railway corridor near Bratislava in Slovakia to stabilise granular trackbed over low strength foundation soils.*

**Tensar**<sup>®</sup>

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