

Rail Solutions

New Construction, Maintenance of Way and Embankment Slope Repair Solutions from Tensar and Geopier®



Poor subgrade soil conditions present construction and maintenance issues for railroads. Tensar and Geopier® have engineered solutions that are designed to economically address a wide range of geotechnical/subgrade conditions. Our combined solutions offer:

- Proven engineered alternative solutions to standard design practices in the industry
- Shorter construction schedules due to simplified construction and installation
- Cost savings resulting from lower cost materials
- Superior strength and stiffness to provide reliable settlement control and longer lasting surfaces

Tensar is a premier provider of technology driven site solutions based on advanced soil stabilization technologies that incorporate high performance, patented products.

The benefits of using our company's products, services, applications and/or systems result in faster, stronger and more economical solutions that save time and money when compared to conventional alternatives.



Tensar geogrid increases the speed of construction, reduces labor and equipment costs and over-excavation of poor soils.



Geopier GeoSpikeSM being installed to treat weak railroad subgrade without removing track, ties or ballast



GAIN THE ADVANTAGE WITH TENSAR AND GEOPIER TECHNOLOGY

- Provides cost savings
- Reduces duration of construction/faster installation
- Extends maintenance cycles
- Reduces track deflection
- Limited service disruptions/loss of revenue



Whether you are an engineer, contractor, or owner - We can help.

Tensar / **GEOPIER**®



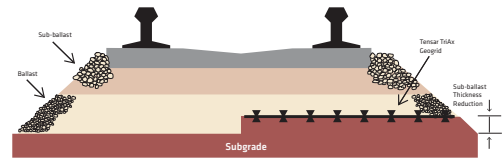
Ground Stabilization Solutions for Railroads

Proven technology behind the solutions

NEW CONSTRUCTION: TENSAR BALLAST AND SUB-BALLAST STABILIZATION

For more than three decades, Tensar has served the mass transit and heavy rail markets by helping to build more cost-effective and longer-lasting tracks, Tensar geogrids have successfully stabilized ballast and sub-ballast layers under a wide range of soil and loading conditions – from light rail to heavy Class 1 rail structures. Tensar’s technology has been proven to substantially reduce track maintenance and is approved by AREMA, Network Rail in the UK and other rail authorities worldwide. Benefits of geogrids include:

- Reduce construction time and costs
- Up to 50% reduction in sub-ballast thickness (with decrease in potential for differential settlement)
- Provide uniform support over varying conditions
- Reduce track deflections
- Extend maintenance cycles by 2-3x or more



Tensar geogrid can stabilize the sub-ballast and ballast layers as well as reduce the layer thickness.



Tensar geogrid can be installed under tracks to extend the design life by a factor of three to six times.

MAINTENANCE OF WAY: GEOPIER GEOSPIKE SYSTEM

The Geopier GeoSpikeSM system is a cost-effective method for strengthening weak railroad track subgrades. This system is installed without removing railroad tracks, ties, or ballast. GeoSpike elements are driven to design depths, then aggregate is backfilled within the pre-manufactured shell. Railroads use the GeoSpike system to stabilize subgrades and decrease track deflections.

- Rapid installation without the need to remove track, ties or ballast
- Reduces need to re-move, rebuild and replace track sections
- Limited service disruptions/loss of revenue



Geopier GeoSpikeSM reinforces the subgrade of track sections and reduces dynamic deflections.

EMBANKMENT SLOPE REPAIR: GEOPIER SRT® SYSTEM

The Geopier SRT[®] system is used to stabilize slopes on existing railway embankments that experience shallow slides. The closely spaced Plate Pile[™] elements form a series of horizontal barriers, which creates a continuous line of resistance against downslope movement. The SRT system provides a fast and permanent repair for shallow slides on rail embankments.

- Solution for shallow slides on constrained sites
- Increases global stability FS for steeper constructed slopes



The Geopier SRT[®] system provides repairs for slides that undermine adjacent tracks.

Whether you are an engineer,
contractor, or owner
- We can help.

Tensar[®]

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