TrackTex™

The Anti-Mud Pumping Solution

Tensar
A Division of CMC

Subgrade Pumping & Reduction of Ballast Life

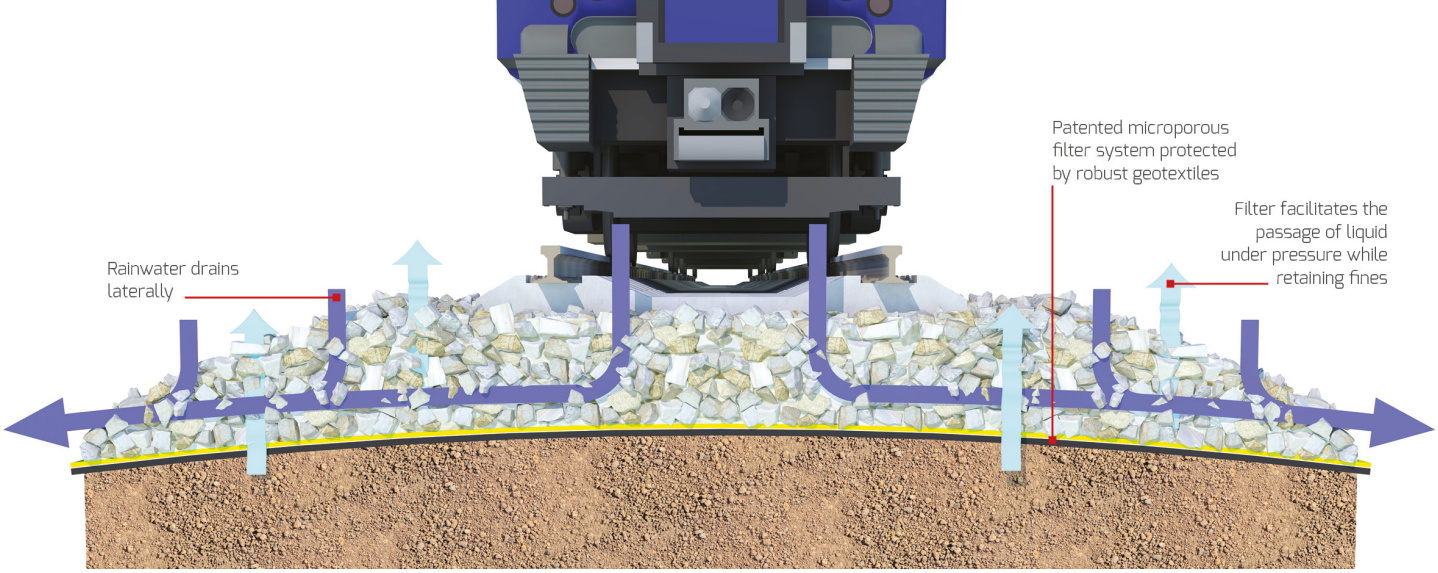
Subgrade pumping has always been a problem in ballasted track. The open texture of ballast allows free water to come into contact with the exposed formation/subgrade surface. When the exposed surface contains fine-grained particles, these can be readily eroded by the water accumulating in the voids, forming weak, highly mobile slurry. This slurry is then 'pumped' up into the overlying ballast by each passing axle load.

Contamination of the clean ballast layer by the fine soil particles in the slurry very quickly reduces the load bearing properties of the ballast and leads to loss of track alignment in the affected area. A small amount of slurry can considerably reduce ballast life. Under extreme conditions the ballast will become unmaintainable within a very short time post-installation.

Geosynthetics have been used for a variety of functions within reconstruction and rehabilitation for approximately fifty years. When correctly specified and installed, geosynthetics have proven to significantly enhance the performance of the trackbed in many ways, often reducing the cost of maintenance and increasing the allowable design life.

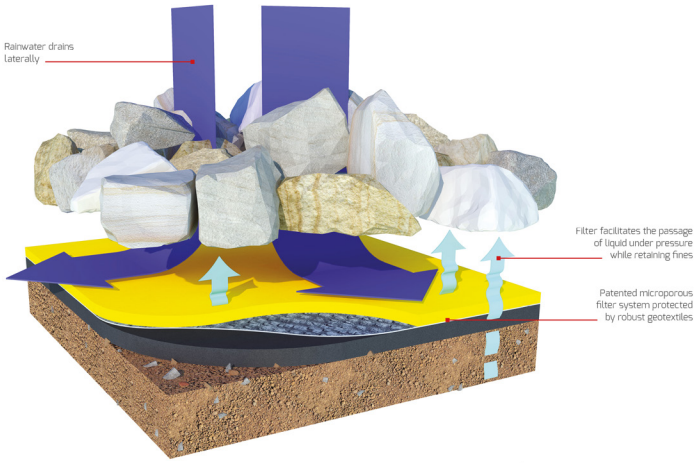
TrackTex®: The Anti-Mud Pumping Solution

The result of over a decade of research, TrackTex a patented geosynthetic with a multi-layer composite combined with a unique microporous filter. The special filter system improves trackbed quality over time and has been proven to significantly increase maintenance intervals. The use of Tracktex® is the most cost effective way of preventing and correcting mud pumping failure.



How It Works

Rainwater is unable to penetrate the micro-porous filter and is drained laterally to the side of the track while pore water below the Tracktex is relieved upwards under cyclic loading which aids residual slurry to dry out as the pore water is dissipated. It can effectively facilitate the passage of liquid under pressure, but the pores block clay fines from coming through. Without pressure, water cannot pass through the filter, so that any underlying clay formation will, over time, dry out and have an improved modulus.



Benefits of TrackTex:

- Prevents subgrade fines and slurry from migrating up into the ballast;
- Facilitates desiccation and drying of the existing subgrade slurry by allowing pore pressures to dissipate under loading, improving the quality of the formation while preventing re-saturation from above;
- Proven sufficiently robust to installation and operational damage;
- Flexible enough to conform to uneven subgrade formations such that no slurry inducing voids exist.

Criteria for TrackTex Use:

- Well established subgrade erosion problem
- Less than 3 inches of good blanketing material separating susceptible subgrade from the base of the ballast
- Typical excavation width shall be 13ft or greater

Note: Where sufficient trackbed stiffness cannot be achieved a geogrid composite (Tracktex/Grid Composite) can be incorporated to improve support.

To learn more about Tensar's proven rail maintenance solutions, visit our website at **TensarCorp.com** or call **800-TENSAR-1**.

Tensar®
A Division of CMC

About Tensar and Geofabrics, Ltd.
TrackTex is manufactured by GEOfabrics, Ltd. and sold exclusively in the United States by Tensar, A Division of CMC. It has been used in live rail since 2010 as a treatment for mud-pumping that provides maintenance savings to Rail Authorities across the USA, Europe, the UK and Australia with more than 10 million square feet installed worldwide.

Preferred Distributors in the United States for: GEOfabrics®