

Railway runaway - bare soil should not be left unprotected



Ahmedabad-Udaipur Broad Gauge Railway

Udaipur, India

The Ahmedabad-Udaipur line is a railway route in the Western and North Western zones of Indian Railways. It plays an important role in providing connectivity to North India and Eastern India.

CLIENT'S CHALLENGE

This rail corridor passes through the Aravalli hills of Northern Gujarat and the Udaipur division of Rajasthan. The high mountains and deep valleys across this route require high embankments to support the railway track formation. The side slopes of these embankments were constructed at 2:1 (horizontal to vertical) with intermittent berms. They were prone to surface run-off causing soil erosion during monsoon rainfall, which required protection.

TENSAR SOLUTION

While the slope stability of the 50m high embankment was assessed by the design and built contractor, Tensar proposed erosion control measure using coir blankets. Composite erosion control blanket comprising a 650gm/m² coir blanket combined with double PP (polypropylene) netting (19mm x 19mm opening) and technical supervision during installation were provided, in line with North-Western railway requirements. It ensures effective erosion control caused by rain splash and surface runoff, as well as supporting vegetation root growth even after the coir matrix has degraded.

B E N E F I T S

- **50m high** railway embankment soil erosion controlled by coir blanket
- **Reduced detachment of topsoil** before vegetation grows
- **Promotes and supports vegetation growth** giving resistance to erosion

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PROJECT DETAILS

Constructed in
2019



High-performance durable ECBs protect the surface and provides a matrix for vegetation to take root.

Erosion Control | No. 447

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