

# **Case Study**



### **TERRAM - the solution for Standedge Railway Tunnel**

Client: Project: Product(s): Network Rail Standedge Tunnel, Huddersfield TERRAM PW1

When maintaining and developing train and freight rail infrastructures across the UK, Network Rail frequently uses TERRAM on tracks, at stations, signalling, bridges, tunnels and level crossings.

### Summary

Network Rail is currently delivering plain track renewals for eight routes, covering the whole of England, Scotland and Wales.

One of the most challenging projects within this is the full track renewal through Standedge Tunnel, in the Yorkshire Pennines, mainly due to the natural height restrictions and the shallow placement of the catch pits. As with all Network Rail projects, procedure dictates that a full Track Bed Investigation Report (TBI) should be carried out to evaluate how to improve the stability, strength and saturation of the track bed surface after renewal. Due to the current ground conditions, the TBI recommended that a geotextile separator should be installed across the site in order to prevent intermixing between sand blanket and new ballast layer.

### Solution

The solution for Network Rail came by using the TERRAM PW1 trackbed separator geosynthetic. The cost—effective product is specifically designed for the rail industry and offers high performance, with its ability to prevent intermixing and improve ground drainage, a key recommendation for the Standedge Tunnel site.



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#### Solution cont'd.

The PW1 geosynthetic is also ideal for preventing the loss of rail track alignment caused by sub-grade erosion, negating the need for long-term costly maintenance procedures caused by having to plan and temporarily close the track for renewal works.

#### Result

TERRAM geosynthetics are increasingly being specified in TBI reports to improve the longevity of site developments and to reduce the time taken to carry out renewals.

Ben Brown, Application and Sales Engineer for rail at TERRAM, commented, "We supply a range of TERRAM products in smaller widths to avoid catch pits or through bridges that can cause issues during installation.

"Overall our geosynthetic solutions greatly improved efficiencies at the Standedge Tunnel site during renewal. Without them Network Rail may have struggled to meet the installation timescales and possession constraints.

"We're looking forward to evaluating the long-term performance of the PW1 geosynthetic across the Standedge Tunnel trackbed." TERRAM's PW1 geosynthetic product provides a long lasting solution to issues that regularly arise in rail construction and refurbishment projects.





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