



Concrete piles up to 14m in depth, driven through the Tensar mechanically stabilised working platform



Working Platforms
Nº 452

ETEX factory extension

📍 Avonmouth, Bristol

CONSTRUCTED IN 2022

Benefits

**27,500m³ (40%)
estimated reduction**
in granular material

**£270,000 (60%)
estimated reduction**
in construction cost

**40 days (40%)
estimated reduction**
in construction time

50% estimated reduction
in carbon emissions

Tensar reduces platform thickness

A working platform was required to address the poor ground conditions for the extension to the ETEX factory in Bristol. A Tensar mechanically stabilised platform was adopted to provide a cost effective and technically suitable solution for the client.

CLIENT'S CHALLENGE

The site comprised of poor ground overlying tidal flat deposits and a high water table was also present. Despite this, the platform thickness had to be reduced from initial designs and be fully constructed from recycled material reclaimed from within the site.

TENSAR SOLUTION

The Tensar proposal achieved a 60% reduction in platform thickness when compared to the proposals available using the illustrative calculation method described in BR470.

The Tensar mechanically stabilised platform, incorporating a Tensar stabilisation geogrid was designed using the Tensar “T-Value” approach which applies Tensar’s extensive, credible and representative research into how geogrid acts within the platform material.

To avoid the need to import granular material, recycled material was recovered from the site and used to form the mechanically stabilised platform. The piling operations were subsequently successfully completed.