



## Tensar construction sequence

CS\_TriAx/30.04.08

# Installation guideline for Tensar TriAx geogrids for the mechanical stabilisation of unbound granular fill over poor subgrades



This installation guideline applies to **Tensar TriAx geogrids** supplied by Tensar International or any of its appointed distributors. It provides a guideline for specifiers in their compilation of specification clauses particular to their own projects and also a guideline to installers. It applies to both the permanent and temporary mechanical stabilisation of areas over which vehicular access is to be provided.

Specifications for the geogrids are available on request from Tensar International or a local Tensar Distributor.

## Subgrade Preparation

For a subgrade over which construction plant cannot safely traverse:

**Tensar geogrids** shall be laid directly on the site, having removed major protrusions such as rocks and tree and bush stumps and also having filled local hollows and depressions with the approved fill but otherwise retaining the vegetation and topsoil covering the site.

or where site conditions permit:

The subgrade shall be levelled in accordance with local highway construction standards to ensure that the geogrid is laid flat and level.

## Placing Tensar Geogrids

Heavy duty gloves should be worn when handling TriAx.

**Tensar geogrids** may be placed on the subgrade either parallel to the road centre line or in the transverse direction. If a geotextile separator has also been specified to accompany the geogrid, then the geogrid should be placed above the geotextile (so that the placed fill can interlock with the apertures of the geogrid).

## Overlaps

The width of overlap between adjacent rolls is dependent upon the grading and thickness of fill and the stiffness of the subgrade. The minimum overlap shall be 300mm and the maximum normally required shall be 600mm or as directed within the contract documents.

Overlaps must be secured and maintained during the filling operation. If necessary, this is generally achieved by placing small heaps of granular fill locally over the overlaps ahead of the main filling operation.

## Granular Fill

A graded aggregate fill is suitable for use with the geogrid. Local highway standards can dictate the use of a base or a sub-base fill.

Specifiers are requested to contact Tensar International or a local Tensar Distributor for specific advice when fill other than the above is to be used.

## Placing Granular Fill

Lorry loads of granular fill material shall be tipped into stockpiles on placed fill and not tipped directly onto the geogrids. The fill stockpiles shall be spread by mechanical plant which causes the aggregate to cascade onto the geogrids, such as an excavator bucket or dozer with an opening bucket.

Fill shall be spread in layers of not less than 150mm thickness. The initial layer thickness to be placed on the geogrid shall be specified in the contract documents along with the maximum layer thickness.

In the stabilisation of wide and broad areas, fill shall be spread such that the first layer advances across roll widths rather than along roll lengths.

Care shall be taken to avoid damage to the geogrids. No traffic or site plant shall be permitted to travel on the geogrids prior to covering them with a layer of granular fill.

## Compaction

Compaction of granular sub-base shall normally be carried out in accordance with with local highway standards

Over exceptionally soft subgrade the degree of compaction applied to the lowest layer of fill may have to be reduced from standard requirements. Details shall be specified within the contract documents.

Your local distributor is:



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