

# Install: Terrex Geotextile

## Storage Advice

The product should be stacked safely in a secure location until ready for use. The protective packing should not be removed until the product is to be installed. For goods delivered with no outer packing, a sacrificial layer of product should be removed and disposed of. Should the product then be left uncovered, the temporary exposure shall not exceed two weeks.

## Description

Terrex nonwovens (**Fig. 1**) are a range of needle-punched and thermally bonded geotextiles that offer the highest levels of engineering performance and quality standards. The range includes products with superior puncture resistance compared with other needle punched nonwoven products of comparable weight. Terrex nonwovens are used in various applications including site access roads, hard standings, road (**Fig. 2**) and railway construction, drainage blankets, car parks, landfills and coastal engineering. The hydraulic properties of the product stimulates the build-up of a natural soil filter in the adjoining soil to ensure long term filtration stability. It is a perfect choice for the protection of sensitive layers or separation of different soils ranging from clay to coarse granular fill.

## Supply

- **Terrex** nonwoven geotextiles are manufactured and supplied in various rolls widths and lengths (**Fig. 3**)

## Equipment Required

- Appropriate PPE according to the construction site
- Sharp knife
- Sand bags or fill material for ballasting in windy conditions prior to covering



**Fig. 1:** Terrex geotextile



**Fig. 2:** Terrex nonwovens in road construction



**Fig. 3:** Terrex supplied in rolls (lifting straps available for larger rolls on request)

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## Subgrade preparation

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It is possible to lay the geotextile directly on undisturbed vegetation e.g. grasses and reeds should levels so permit. Any plant vegetation such as bushes or shrubs, as well as large rocks or other similar obstacles must be removed. All voids, wheel ruts or other deep depressions require filling or levelling to provide a smooth surface (**Fig. 4**).

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## Product installation

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The geotextile should be rolled out (**Fig. 5**) and allowed to follow the contours of the land. It should be kept as taut as possible in an effort to minimise folds, but not stretched so that it spans over any hollows. Small deposits of fill material may be required across the geotextile surface to hold it in place until fill placement commences. No vehicle should traffic directly on the geotextile surface at any time.

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## Product continuity

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The simplest and quickest method of ensuring product continuity is to overlap adjacent layers (**Fig. 6**). Rolls placed side by side should have a minimum overlap of 300 mm whilst length on length should have a minimum overlap of 600 mm (this requirement can be defined to an even stricter degree according to local legislation). Over soft or uneven soils these overlaps may need to be increased. Please contact our office for further advice. Should special circumstances identify a need for a mechanical joint then further details may be obtained from our office.

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## Cutting to length

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Product may be cut to length using either a sharp blade or scissors.

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## Cutting to width

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Should the geotextile width have to be reduced then the product may be cut down whilst still in a roll format. Nonwoven products may be cut with a hand or power saw. This latter method will to a small degree fuse the roll end making the product slightly more difficult to unwind.



**Fig. 4:** Subgrade preparation



**Fig. 5:** Unrolling Terrex onto firm formation



**Fig. 6:** Overlapping of Terrex sheet

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## Placement of cover fill

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Fill material should be end tipped at either the edge of the geotextile or on top of already placed fill before being spread to the required depth using a tracked machine (**Fig. 7**). A minimum fill layer thickness over the geotextile of 150 mm is recommended prior to any trafficking or compaction.

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## Fill restrictions

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The choice of fill placed directly on the geotextile's surface can greatly affect the amount of damage caused to it during installation. A simple piece of guidance to help minimise this damage is to use a maximum stone size no greater than half the fill layer thickness e.g. if fill is being placed and compacted in 150 mm layers then the maximum stone size should be no greater than 75 mm. This prevents any stone in direct contact with the compactor at the surface also coming into contact with the geotextile. Another option is to place a 50 mm thick sacrificial sand blanket on the geotextile prior to main fill placement.

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## Installation damage

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Should the geotextile be damaged during fill placement then the surrounding fill material should be removed and a second geotextile layer placed over the damaged area. A minimum overlap of 1,500 mm should be provided between the edge of the damaged area and the outside edge of the patch. Fill placement should then continue as before.

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## Disposal of waste

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A small quantity of waste is generated with each roll of geotextile product used. This can include packing, a plastic or cardboard roll centre and possibly product offcuts. We would ask that you please give consideration to the environment when disposing of this material.

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## COSHH

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There are no known COSHH hazards associated with the installation of Terrex but care should be taken when lifting and cutting.



**Fig. 7:** Placement of backfill



**Fig. 8:** Installation onto slopes for erosion control, conforming to dips / hollows