



## Guidelines for the Transportation, Storage and Installation of BOSTD America Biaxial Geogrid Products

The following information is offered to assist end users with the transportation, storage and installation of BOSTD AMERICA geogrids. As installation damage is one of the key factors that effects the integrity of the installed product it is recommended that the following guidelines be followed as closely as possible:

**o Safety & Handling:** BOSTD AMERICA Polypropylene and biaxial geogrid products are manufactured from materials that are generally not hazardous to health. Should the products be involved in a fire, care should be taken not to handle hot or molten material or inhale smoke. While handling the material, it is recommended that protective gloves are worn to avoid any cuts or abrasions as the mesh can be quite sharp, particularly at cut edges. Take care when walking on the product as it can be slippery when wet. For additional information, contact us to request the BOSTD AMERICA Geogrid Safety Data Sheet (SDS).

**o Storage:** The product should be stacked safely in a secure location on firm ground until ready for use. The rolls may be parallel or cross stacked up to 5 rolls high. Stacks must be adequately chocked to prevent collapse. Products may be stored un-covered out-of-doors during normal construction periods of a few weeks. Extended storage, e.g. of excess material between projects, should be covered or indoors.

**o Transportation:** Depending on local regulations concerning manual lifting, rolls of product may be transported by hand or machine. For manual transport, good lifting practice and local regulations must be followed. For machine transport, rolls may be carried carefully across the forks of a forklift-truck or by means of a round “carpet boom” inserted in the central core of the roll. It is not recommended that conventional flat forks be inserted into the central core holes of rolls of product.

**o Subgrade Preparation:** It is possible to lay the geogrid directly on undisturbed vegetation e.g. grasses and reeds should grading elevations permit. Any woody plant vegetation such as bushes or shrubs, as well as large rocks or other similar obstacles must first be removed. On very soft ground it can be advantageous to cut vegetation flush with the ground to leave the root-zone and soil crust undisturbed. All voids, wheel ruts or other deep depressions should be either filled or leveled to provide a smooth surface.

**o Product Installation:** The geogrid should be rolled out and allowed to follow the contours of the ground. Generally, the direction of laying will be specified in the contract or design documents. Biaxial geogrids may be placed on the subgrade either parallel to a road center line or at right angles to it. Geogrids should be tensioned by hand to remove slack and to



## Guidelines for the Transportation, Storage and Installation of BOSTD America Biaxial Geogrid Products

ensure that any mechanical joints are taught. Small deposits of fill material may be required on top of the geogrid to hold it in position until the main fill placement commences. No construction traffic may be allowed to travel directly on the geogrid prior to fill placement.

**o Geotextile/Geogrid combinations:** Should the joint use of a geotextile separator and geogrid be specified over very soft ground then the geogrid should always be placed on top of the geotextile.

**o Product Continuity:** For Biaxial geogrids the simplest and quickest method of ensuring product continuity is to overlap adjacent layers. Roll edges and ends should have a minimum overlap of 12in (300mm). Over soft or uneven soils these overlaps may require to be increased up to as much as 36in (900mm). Typically, as the ground strength reduces below CBR4 the overlap should increase to about 20 in (500mm) at CBR2 and 36in (900mm) at CBR0.5 or below. Overlaps should be shingled in the direction of fill placement. Care should be taken to ensure that the overlaps are maintained during fill placement. The use of plastic zip-lock ties at 18in to 36in (0.5 to 1m) spacing can help to hold overlaps in place during fill placement. Should a mechanical joint be required then please consult BOSTD AMERICA for further details.

**o Cutting to size:** Product may be cut to length or width using a utility knife, snips, or powered cutting equipment. Normal safety precautions must be followed during cutting operations.

**o Placement of Cover Fill:** Fill material should be end dumped at either the starting edge of the geogrid or on top of already placed fill before being spread to the required depth using a tracked machine. A minimum fill layer thickness over the geogrid of 6in (150mm) is recommended prior to any trafficking or compaction. During spreading the equipment blade should be angled back to lift fill rather than push it.

**o Fill Selection:** A selection of fill types may be used with BOSTD AMERICA geogrids. Ideally the use of a DOT graded aggregate base is recommended.

**o Fill Compaction:** Compaction of the base aggregate material should follow the project specifications.

**o Additional Information:** For additional information, please contact BOSTD America at 580-722-2100.