

DuraGrid X & GridTex

INSTALLATION GUIDELINES: BASE REINFORCEMENT APPLICATIONS AND STABILISATION

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1. OUTLINE

This installation guideline is for DuraGrid X geogrids and GridTex geocomposites used in pavements and raft foundations. It includes storage and handling, installation of geogrids and fill placement. This guide is generic in nature and would be superseded by any project specific installation guidance.

2. APPLICATIONS

This installation guide is applicable for geogrid installation in base reinforcement applications, which includes:

- Sealed and unsealed roads
- Parking areas
- Stabilisation for yards, and multidirectional traffic areas
- Reinforcement over soft ground
- Raft foundations

3. STORAGE AND HANDLING

When the geogrids are delivered to site it is recommended to check the type and grade match the requirements of the project documents. All geogrids should be marked clearly and in good condition before being accepted on site.

Geogrids are transported and stored in rolls. These rolls can be stacked on top of each other but mustn't exceed seven rolls high. If stored on the ground, place a tarpaulin down first to help protect the rolls from dirt. A cover for protection from the elements is required if the geogrids are stored onsite for longer than two months. For stacked rolls extra care is required to ensure the stack is stable and the rolls cannot fall or roll.

Geogrids can be installed manually or by mechanised equipment. The edges of the geogrid rolls can be sharp, gloves are required while hand carrying and placement to prevent injury. Mechanised equipment can be used for installation, care should be taken not to damage the geogrid.

Any questions regarding storage and handling of geogrids please contact your Cirtex[®] representative.



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4. INSTALLATION

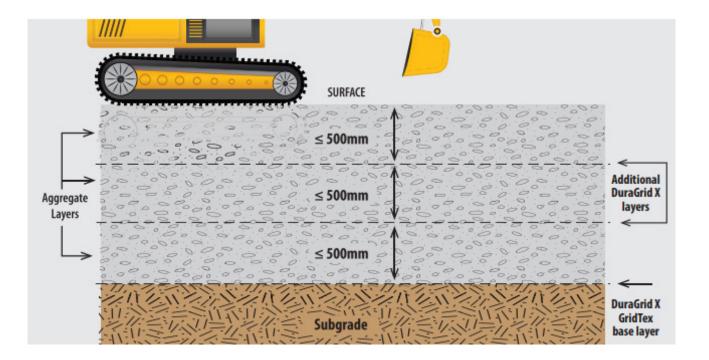
Before installation the ground surface will need to be prepared to provide a level and uniform surface with all appropriate clearing complete. Additional preparation may be required as advised from your Cirtex representative or project engineer.

Next place the DuraGrid X/GridTex as specified in the project plans and specifications. The geogrid must be laid flat and smooth directly on the prepared subgrade*. All wrinkles and folds need to be removed.

The geogrid should be overlapped with a minimum of 300mm in all directions or joined as specified in the project plans. Soft subgrade installations may require a greater overlap or joining of rolls using cables ties to help maintain the placement and orientation during fill placement. Consult the project plans and specifications for more instructions.

Please note that some applications may require additional layers of DuraGrid X. The distance between the layers should not exceed 500mm unless otherwise specified by the project engineer.

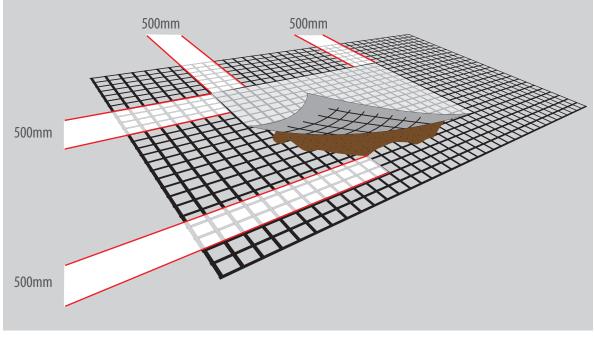
*In most applications a nonwoven geotextile such as DuraForce[™] AS280 should be installed directly onto the prepared subgrade before laying the DuraGrid X.







Cutting of DuraGrid X/GridTex (for example with an electric powered rotary cutter)



Repair of damage areas







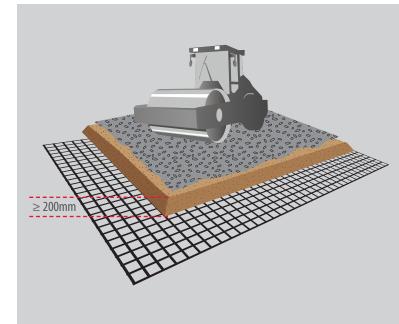
5. FILL PLACEMENT & COMPACTION CONTROL

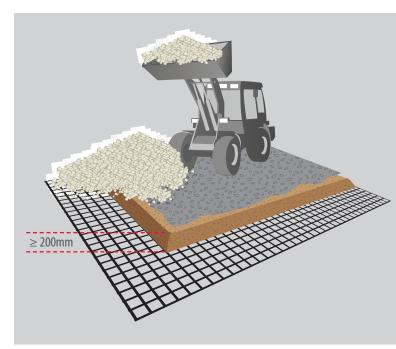
Before placement, the geogrid will need to be inspected by the project engineer to make sure it has been placed correctly and hasn't been damaged during the installation process. Any damaged geogrid will need to be repaired immediately by either replacing it or by patching to cover the damaged area.

Typically, construction vehicles are not allowed to drive directly on the geogrid. Fill is not to be tipped directly onto the geogrid. The subbase or base course should be placed so a minimum of 150mm is in place before trafficking may occur.

If signed off by the site engineer, vehicles may be allowed to drive directly on the geogrid on firmer subgrades provided no turning or sudden stops occur, and slow speeds are maintained. Any ruts that occur during fill placement will need to be immediately filled in.

Typically, granular fill is used for base reinforcement applications. In all cases fill used should be as required by the specifications and will need to be placed and compacted accordingly. If guidance is not provided, compaction shall be carried out according to the minimum standards set forth by appropriate guidelines or contact Cirtex for more information.





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