

# Geosynthetics: Specifications and Applications for Arizona, Volume 1



Arizona Department of Transportation Research Center

### 412-3.03 Surface Preparation

The pavement surface on which the fabric is to be placed shall be ~~cleaned to remove all dirt, water, oil, and any vegetation or debris~~ reasonably free of dirt, water, oil, vegetation, or other debris. Cracks exceeding 1/8 inch in width shall be filled with suitable crack filler. Potholes shall be properly repaired as directed by the Engineer. Fillers shall be allowed to cure prior to placement of the pavement fabric interlayer.

In addition, Subsection 412-2.04 should be updated to reflect the latest recommendations for packaging, handling, and storage in accordance with ASTM D4873. The following requirements are suggested:

- The roll core shall have a crushing strength sufficient to avoid collapse or other damage in normal use.
- The roll shall be covered with an opaque material for protection from damage due to shipment, water, sunlight, undesirable chemicals, or any other environmental condition that may damage the physical property values of the geosynthetic.
- Each roll shall be labeled with the name of the manufacturer or supplier, the product or style number, and the unique roll number. The label shall also include the roll length and width. The label shall be on the core or on the outer package.
- Use forklifts or slings to unload and transfer rolls to prevent damage to the wrapping or the geotextile or breaking of the core. Do not drag rolls.
- Store geotextiles elevated, off the ground.
- Do not store geotextiles at temperatures in excess of 160°F (71°C) or below 32°F (0°C).

### Subsection 1014-3 Geogrid

The revised geogrid properties were based on the research conducted in this project. The properties specified are those most closely associated with the performance of the geogrid based on the research reviewed and in support of the design guidelines developed. The values specified were selected to represent the properties of Type II Biaxial Geogrid, which is a non-proprietary type of geogrid that is sold by multiple manufacturers.

### Changes Based on Industry Survey

Comments received from the industry survey suggested that the specification should also allow for triaxial geogrids or alternate geogrid materials. The TAC requested that a specification to allow for triaxial geogrid or alternate geogrid materials be included in the research report for possible future implementation. A specification for triaxial geogrid or alternate geogrid materials was developed and is shown in Appendix V.

Industry survey comments also suggested that bonded and welded geogrids should be allowed. The draft specification was revised to allow for bonded and welded geogrids.