

TRANSNET® GEONET AND THE ADVANTAGES OF RADIAL FLOW PATHS

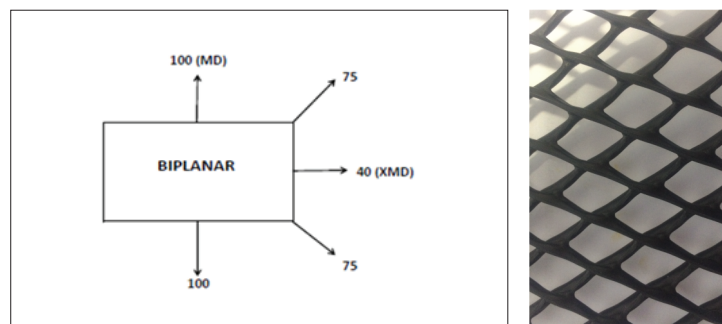
1.0 Introduction

The manufacture of geonets is an extrusion process with variations in rib geometry to provide the void required for the drainage function of the product.

2.0 Bi-Planar Geonets

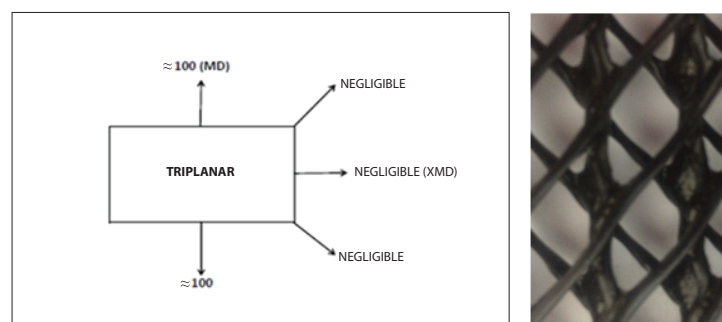
Transnet® geonets have a core profile described as bi-planar. The structure of the geometry of the ribs is quite simple. The major feature of the rib design is that the Transnet® geonet drainage core allows relatively radial flow in all directions of the product.

This drainage feature is important in relatively flat drainage applications such as the base of a landfill or a leachate pad (mining applications) or like flat planar structures that may be subject to differential settlement. A designed drainage grade may be compromised by ground settlement and it is important that the drainage function of the product is maintained in spite of changes to predetermined grades.



3.0 Tri-Planar Geonets

Alternate competitor geonets that have a more complex structure with three layers of ribs have good compressive characteristics but the structure of the geometry of the ribs is such that the dominant flow direction is in the machine direction (MD) of the roll with negligible flow in other directions of the product. This style of geonet is called a tri-planar geonet. The use of the term is somewhat of a misnomer as the flow is generally unidirectional, with the term more reflective of the three layers of ribs. In applications of flat or low grade, the drainage characteristics of a tri-planar geonet may be compromised in areas where ground settlement takes place and designed drainage grades change. It is very critical that in all applications and if using a tri-planar geonet that the direction of placement is always carefully considered and always with the machine direction of the roll placed in the direction of the required flow.



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