

SC Intergrid



Formpave

The unique structure of the SC intergrid incorporates several characteristics which out-perform conventional biaxial geogrids in traffic applications.

Load distribution is 3-dimensional in nature and acts radially at all levels in the aggregate. For a stabilised layer to be effective it must have the ability to distribute load through 360 degrees.

The SC intergrid has three principal directions of stiffness, which is further enhanced by their rigid triangular geometry. This produces a significantly different structure than any other geogrid and provides high stiffness through 360 degrees. A truly multi-directional product with near isotropic properties.

The SC intergrid is produced from an extruded sheet of polypropylene. This is then punched and stretched to create the unique structure, which coupled with the design of junctions results in a product with high junction strength and stiffness. Testing has been conducted in line with each of the three rib directions. The junction strength was found to be essentially equal to the rib strength - giving a junction efficiency of 100%

In a mechanically stabilised layer, aggregate particles interlock within the geogrid and are confined within the apertures, creating an enhanced composite material with improved performance characteristics. The shape and thickness of the geogrid ribs and the overall structure of SC intergrid has a direct influence on the degree of confinement and efficiency of the stabilised layer.

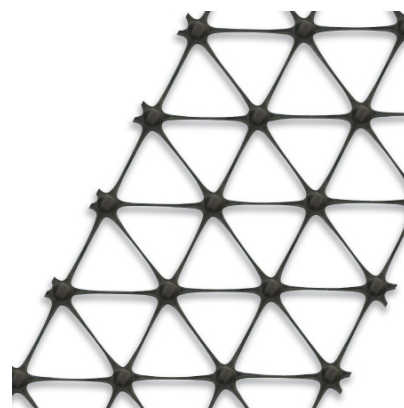
SC Intergrids have greater rib depth compared with conventional biaxial geogrids. Traffic tests and analytical modelling were undertaken to compare performance advantages between the biaxial and SC Intergrid in a mechanically stabilised layer. The results were conclusive in confirming that an improved structural performance was achieved with the SC Intergrid design.

The improved performance of SC Intergrid enables greater reduction in aggregate layer thickness, further reducing the quantities of natural aggregates used and the volume of material to be excavated. These additional savings in materials and transport will help engineers to meet their sustainability objectives.

A number of tests and trials have been conducted and prove the performance benefits of the SC Intergrids. Tests included traffic trials at the University of Nottingham and, on a large scale, at the Transport Research Laboratory. Installation damage assessment, bearing capacity and field tests were also conducted as part of the comprehensive and rigorous testing programme.

Technical Data

Polymer	Polypropylene
Minimum carbon black content	2%
Weight Kg/m²	0.24
Roll Dimensions	50m x 4m
Roll Weight	48.5kg



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