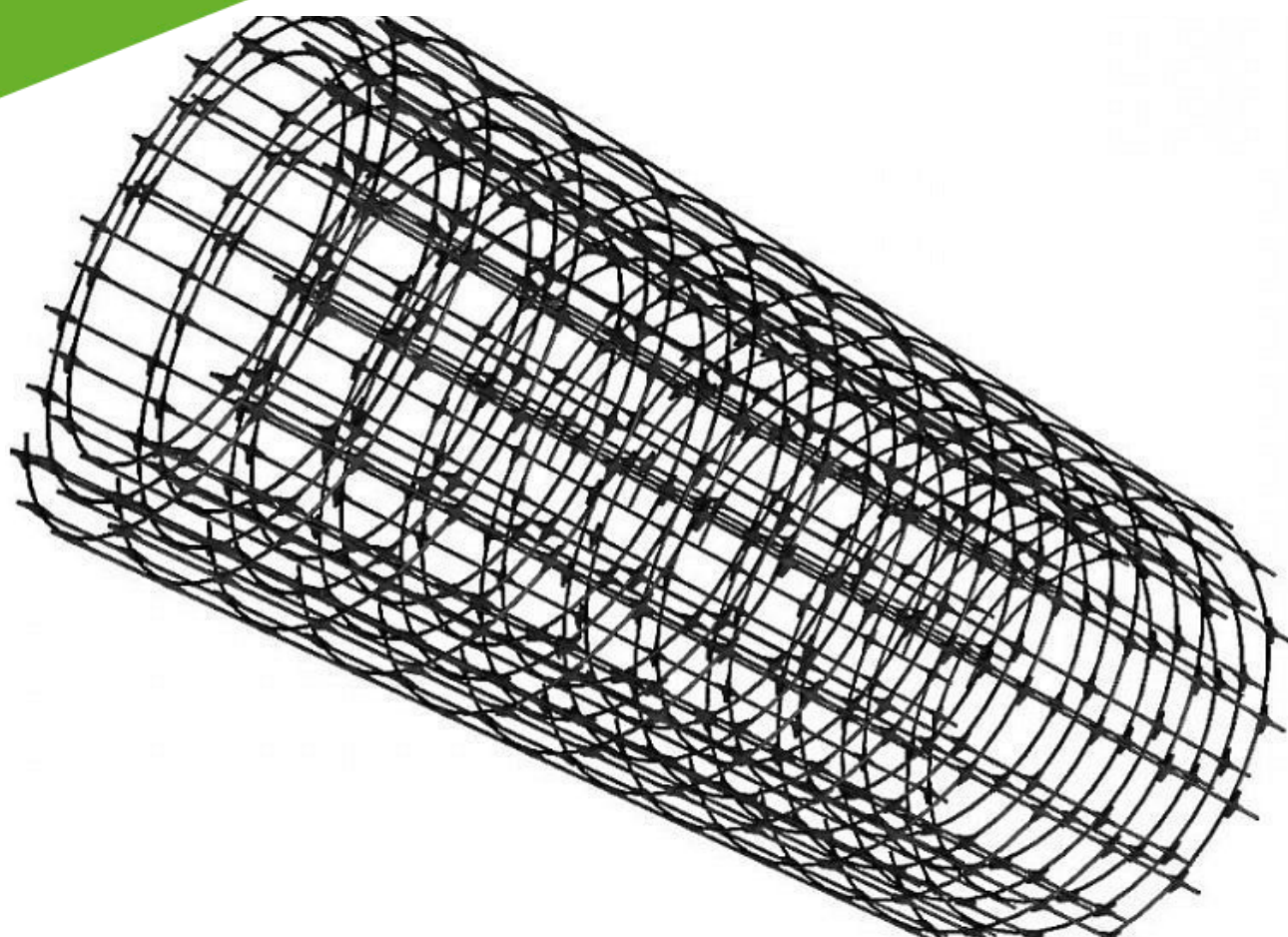
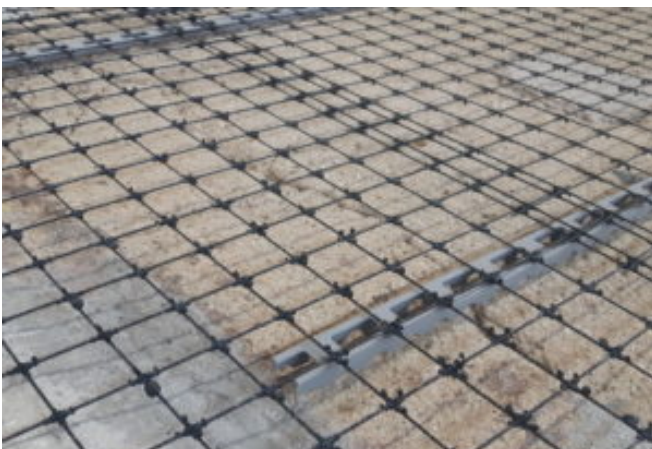
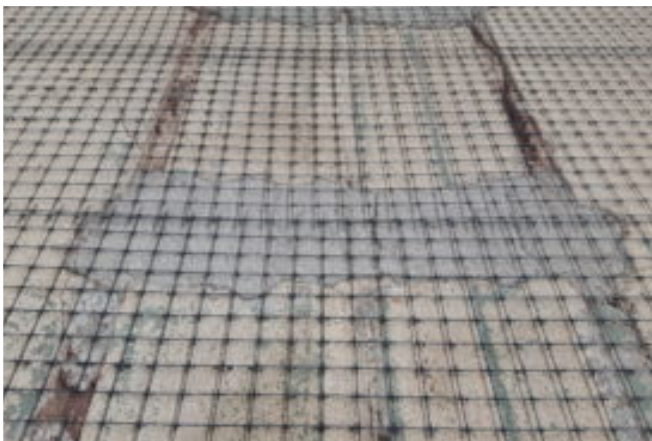
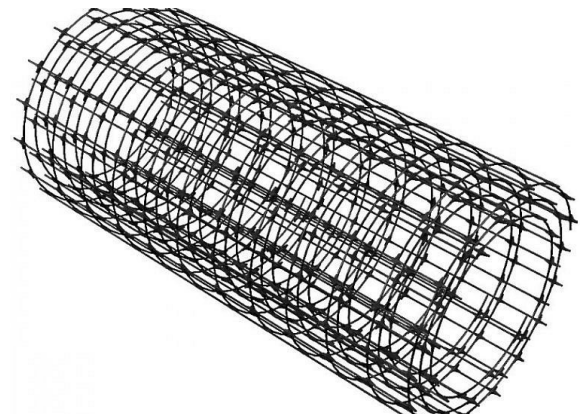


ORLITECH[®]
Composite systems

Orlitech Mesh

BFRP Slab Mesh





In the past welded wire or steel rebar has provided structural reinforcement in concrete slabs and walls. Now Orlimex offer an easy to use Basalt Fibre Reinforced Polymer (BFRP) mesh reinforcement - Orlitech.

- 6 x lighter than steel
- Twice as strong as steel - tensile strength >1250 MPa
- Does not corrode or conduct electricity / non magnetic
- Easy to handle
- Easy to cut - No H&S issues
- Low thermal conductivity: 0.046W/mK
- Carbon footprint 5 x less in production than steel
- ISO 9001:2008



Orlitech mesh 3mm 100x100 can be used in lieu of traditional steel mesh or rebar in reinforced concrete ground bearing slab. Where Orlitech mesh is to be used as reinforcement, mesh should be placed in the lower third of the slab at least 25mm from the underside of the slab. Individual parameters need to be checked and confirmed by a structural engineer – we can provide guidance for slab design in accordance with ACI 400 and TR34 please contact us for more information.

Shrinkage and temperature reinforcement is different to structural reinforcement. For control of shrinkage and temperature cracking Orlitech mesh reinforcement 3.0mm x 100mm x 100mm should be located in the upper third of the slab because shrinkage and temperature cracks initiate at the top of the concrete slab. Crack formation results in cracks wider at the top, therefore, any crack-control reinforcement should not be placed in the lower section of the slab.

Orlitech mesh does not have welded connections, each BFRP wire is continuous and jointed with a patented connection nodule. Orlitech mesh lies completely flat once taken off the roll and can be easily cut with a pair of pliers.

Orlitech reinforcement should be supported and tied together to reduce movement during pouring of the concrete to maintain correct placement within the concrete.



LABC
Assured

Building Control & Warranty

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Orlitech mesh 3mm 100x100 is suitable for structural reinforcement of ground bearing slabs where the ground bearing capacity is greater than 0.1MPa with a load per M2 of less than 1 Tonne and assumed to be cast on prepared ground and membrane in accordance with BS8103-1:2011. It is also suitable for reinforcement / crack control in structural topping of beam and block floors (both concrete and EPS). For applications outside of these parameters please contact Orlimex technical department.

For load bearing slabs we recommend that we provide you with a structural calculation to ensure the best alternative is used.

Structural reinforcement mesh from Orlimex consists of 6mm – 12mm mesh and can be used to increase the load bearing capacity of the slab. In this case the larger diameter mesh would be used for the bottom layer and the 3mm mesh for crack control for the top layer.



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