ORLITECH®
Composite systems

ORLITECH MESH

COMPARISON TABLES

ORLITECH® mesh is resistant to corrosion and UV radiation, it doesn't change its mechanical features and won't cause a degradation of concrete, moreover, due to the high alkali resistance and anti-corrosion properties, the working life of concrete elements is increased greatly, making it ideal for use in chemically aggressive areas.

The mesh does not conduct electricity and is non-magnetic, it does not absorb static and is redundant to radio waves, making it appropriate for the construction and refurbishment of housing, hospitals and airports.

BENEFITS

- The key attribute of ORLITECH® mesh is the material's weight, it's seven times lighter and two and a half times stronger than traditional steel.
- Its low weight makes it especially easy to handle, carry and transport.
- Transportation costs are reduced due to weight and volume.
- It is easily installed by one person and makes assembly on site three times faster than with traditional steel mesh.
- Reduces installation time, so speeding up schedules – get on and off site quicker.
- Manual handling and Health & Safety risks are greatly reduced.
- ORLITECH® mesh for screeds, ground bearing concrete slabs and structural toppings is supplied on a roll (22.5m - 36m), up to 3mm wires and sheets for wire size between 5mm and 12mm.

3mm MESH		
No	Characteristic	Required (R)/ Declared (D) value
1	Tensile Strength	D: $f_{u,c}$ min. 1250MPa
2	Elongation at 50%	D:ε_u 1.6% - 5.6%
3	Modulus of Elasticity	D: *E*: min 37GPa
4	Connector Strength	D: min 100N
5	Alkali resistance	D: R_{et} ≥25%
6	Fibre Content	D: min 80%

SAVES TIME • IMPROVES SCHEDULES • SAVES MONEY

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3mm Mesh	ORLITECH® Mesh	A142 Steel Mesh
Opening Size	100 x 100	200 x 200
Bar (wire) diameter	3 mm	6 mm
Bar (wire) tensile strength, not less than	1200 MPa	500 MPa
Bar (wire) elongation	2.2 - 2.8%	0.25%
Thermal Conductivity coefficient, not more than	0.46 (m·K)	56 W/(m·K)
Weight per mesh area	0.316 Kg/m^2	2.22 Kg/m^2
Electrical Conductivity	Non-conductive	Conductive
Corrosion and chemical resistance	Very high	Low
Magnetic characteristics	Non-magnetic	Magnetic
Embodied Carbon /M^2 GWP	0.95	4.7
Delivery in sheets	No deformation	Possible deformation
Delivery in coils	No deformation unrolled mesh regains its initial form	Coils unrolled mesh needs additional treatment

5mm Mesh	ORLITECH® Mesh	A193 Steel Mesh
Opening Size	200 x 200	200 x 200
Bar (wire) diameter	5 mm	7 mm
Bar (wire) tensile strength, not less than	1200 MPa	500 MPa
Bar (wire) elongation	1.5 - 2.8%	0.25%
Thermal Conductivity coefficient, not more than	0.46 (m·K)	56 W/(m·K)
Youngs Modulus GPa	55	200
Weight per mesh area	0.5 Kg/m^2	3.02 Kg/m^2
Electrical Conductivity	Non-conductive	Conductive
Corrosion and chemical resistance	Very high	Low
Magnetic characteristics	Non-magnetic	Magnetic
Embodied Carbon /M^2 GWP	1.36	6.4
Delivery in sheets	No deformation	Possible deformation

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6mm Mesh	ORLITECH® Mesh	A393 Steel Mesh
Opening Size	150 x 150	200 x 200
Bar (wire) diameter	6 mm	8 mm
Bar (wire) tensile strength, not less than	1200 MPa	500 MPa
Bar (wire) elongation	2.2 - 2.8%	0.25%
Thermal Conductivity coefficient, not more than	0.46 (m·K)	56 W/(m·K)
Youngs Modulus GPa	55	200
Weight per mesh area	0.82 Kg/m^2	6.16 Kg/m^2
Electrical Conductivity	Non-conductive	Conductive
Corrosion and chemical resistance	Very high	Low
Magnetic characteristics	Non-magnetic	Magnetic
Embodied Carbon /M^2 GWP	1.71	13.8
Delivery in sheets	No deformation	Possible deformation

6mm Mesh	ORLITECH® Mesh	A252 Steel Mesh
Opening Size	200 x 200	200 x 200
Bar (wire) diameter	6 mm	8mm
Bar (wire) tensile strength, not less than	1200 MPa	500 mpa
Bar (wire) elongation	2.2 - 2.8%	0.25%
Thermal Conductivity coefficient, not more than	0.46 (m·K)	56 (m.K)
Youngs Modulus GPa	55	200
Weight per mesh area	0.63 Kg/m^2	3.95Kg/M2
Electrical Conductivity	Non-conductive	Conductive
Corrosion and chemical resistance	Very high	Low
Magnetic characteristics	Non-magnetic	Magnetic
Embodied Carbon /M2 GWP	1.71	8.4
Delivery in sheets	No deformation	Possible deformation

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COMPARISON TABLES

8mm Mesh	ORLITECH® Mesh
Opening Size	150 x 150
Bar (wire) diameter	8 mm
Bar (wire) tensile strength, not less than	1200 MPa
Bar (wire) elongation	2.2 - 2.8%
Thermal Conductivity coefficient, not more than	0.46 (m·K)
Youngs Modulus GPa	55
Weight per mesh area	1.5 Kg/m^2
Electrical Conductivity	Non-conductive
Corrosion and chemical resistance	Very high
Magnetic characteristics	Non-magnetic
Embodied Carbon /M2 GWP	4
Delivery in sheets	No deformation

8mm Mesh	ORLITECH® Mesh
Opening Size	200 x 200
Bar (wire) diameter	8 mm
Bar (wire) tensile strength, not less than	1200 MPa
Bar (wire) elongation	2.2 - 2.8%
Thermal Conductivity coefficient, not more than	0.46 (m·K)
Youngs Modulus GPa	55
Weight per mesh area	1.13 Kg/m^2
Electrical Conductivity	Non-conductive
Corrosion and chemical resistance	Very high
Magnetic characteristics	Non-magnetic
Embodied Carbon /M2 GWP	3.0
Delivery in sheets	No deformation

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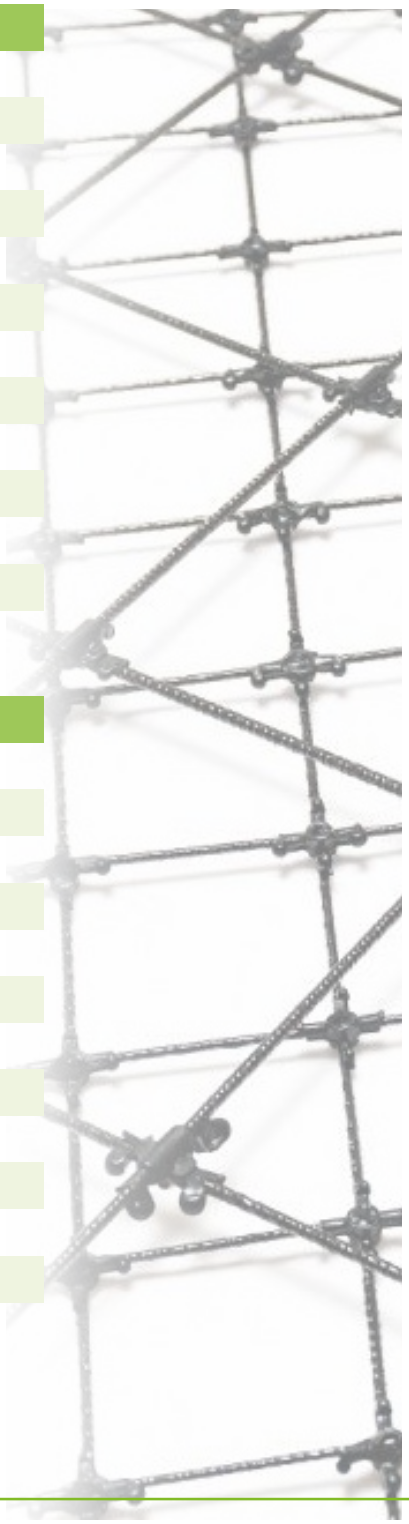
10mm Mesh	ORLITECH® Mesh
Opening Size	150 x 150
Bar (wire) diameter	10 mm
Bar (wire) tensile strength, not less than	1200 MPa
Bar (wire) elongation	2.2 - 2.8%
Thermal Conductivity coefficient, not more than	0.46 (m·K)
Youngs Modulus GPa	55
Weight per mesh area	2.27 Kg/m^2
Electrical Conductivity	Non-conductive
Corrosion and chemical resistance	Very high
Magnetic characteristics	Non-magnetic
Embodied Carbon /M2 GWP	6.1
Delivery in sheets	No deformation

10mm Mesh	ORLITECH® Mesh
Opening Size	200 x 200
Bar (wire) diameter	10 mm
Bar (wire) tensile strength, not less than	1200 MPa
Bar (wire) elongation	2.2 - 2.8%
Thermal Conductivity coefficient, not more than	0.46 (m·K)
Youngs Modulus GPa	55
Weight per mesh area	1.72 Kg/m^2
Electrical Conductivity	Non-conductive
Corrosion and chemical resistance	Very high
Magnetic characteristics	Non-magnetic
Embodied Carbon /M2 GWP	4.6
Delivery in sheets	No deformation



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