

PRODUCT DATA SHEET

Edition: 20240801

FRCM PBO MESH 18/70

HIGH-STRENGTH HIGH-DUCTILITY FRCM PBO MESH FOR STRUCTURAL STRENGTHENING

DESCRIPTION

FRCM PBO MESH 18/70 is a bidirectional woven PBO mesh designed for FRCM structural strengthening applications.

USES

FRCM PBO MESH 18/70 as part of FRCM system is suitable for:

- Structural strengthening of reinforced concrete and masonry elements.
- Increasing the load-bearing capacity of beams, slabs, walls, columns.
- Increasing existing components' flexural, shear and axial load-bearing capacities.
- Seismic strengthening of existing structures.
- Repairing and strengthening aging structures.
- Correcting structural design and construction defects.

FRCM SYSTEM ADVANTAGES

- High strength with low weight.
- High elongation can increase components' ductility.
- Flexible and can be wrapped around complex shapes.
- Good heat resistance capacity.
- Non-corrosive and alkali-resistant.
- Low aesthetic impact.

PRODUCT INFORMATION

Color	Gold Yellow
Fiber Orientation	Bidirectional 0°/90°
Width	100 cm or customized width
Packaging	20m/Roll or customized length
Storage	Store in a dry place and without direct sunlight at a temperature between -5°C and +35°C
Fiber Content	100%

TECHNICAL INFORMATION

Properties of PBO Fiber

Properties	Value
Tensile Strength	5800 MPa
Tensile Elastic Modulus	270 GPa
Elongation At Break	2.5%
Density	1.56 g/cm ³
Decomposition Temperature	650 °C

Properties of PBO MESH

Properties	Value
Areal Weight in Warp	70g/m ²
Areal Weight in Weft	18g/m ²
Nominal Thickness in Warp	0.046mm
Nominal Thickness in Weft	0.011mm
Tensile Elastic Modulus of Dry Mesh	240 GPa

Properties of PBO MESH FRCC System(MESH+MORTAR)

Properties	Value
Thickness of FRCC System (2 layers of mortar)	6-8mm
Ultimate Tensile Strength	1535 MPa (ACI 549.4R-20/AC434)
Ultimate Strain	1.65% (elastic phase 1.2%) (ACI 549.4R-20/AC434)
Tensile Elastic Modulus of Cracked Phase	130 GPa (ACI 549.4R-20/AC434)

APPLICATION INSTRUCTIONS

- Refer to the Method Statement of PBO MESH MOTAR.

LIMITATIONS

- Design calculations must be certified by an independent licensed professional engineer.
- Minimum radius for application around corners must be over 20 mm.
- Overlapping of the mesh should be at least 300 mm.

HEALTH & SAFETY INFORMATION

- Refer to the most recent Safety Data Sheet for safe handling, storage, and disposal of the product.

LEGAL NOTES

- The Information and recommendations relating to the application and end-use of FIDSTRONG products, are given in good faith based on our current knowledge and experience of the products when properly stored, handled and applied under normal conditions. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing

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