

SikaWrap®-350G Grid

Fiberglass net for structural reinforcement of plasters and mortars

Product Description

SikaWrap®-350 G Grid is a balanced bi-directional glass fibre grid, equipped with an alkali resistant coating, to be used as part of a textile reinforced mortar.

Uses

SikaWrap®-350 G Grid embedded in Sika MonoTop®-722 Mur is used for

- Reinforcing masonry walls made of brick, blocks or stone
- Reinforcing infill masonry walls
- Connecting masonry walls to other walls or to an RC structure
- Increasing the resistance to out-of-plane failure of masonry walls subject to horizontal earthquake action
- Increasing the in plane resistance and ductility of masonry walls subject to horizontal earthquake action
- Repair of cracked masonry walls

Characteristics / Advantages

- High tensile resistance in both directions
- Economical
- Non corroding
- Alkali resistant coating

Δοκιμές

Εγκρίσεις/ Πρότυπα

Politecnico di Milano - Dipartimento di Ingegneria Strutturale: Prove di caratterizzazione di sistemi di rinforzo di elementi in muratura (Contratto di ricerca 2011-2012)

ZAG Ljubljana (SLO): Seismic strengthening of brick masonry walls with TRM system (0785/08-650-1 - 2011)

Eurocode 6: Design of masonry structures

ACI 530/530.1-13: Building Code Requirements and Specification for Masonry Structures

Eurocode 8: Design of structures for earthquake resistance

ACI 549.4R-13 Guide to Design and Construction of Externally Bonded Fabric-Reinforced Cementitious Matrix (FRCM) Systems for Repair and Strengthening Concrete and Masonry Structures.

ACI 440.7R-10 Guide for the Design and Construction of Externally Bonded Fiber-Reinforced Polymer Systems for Strengthening Unreinforced Masonry Structures.

CNR-DT 200 R1 (2013) Guide for the Design and Construction of Externally Bonded FRP Systems for Strengthening Existing Structures, (Italy)



Product Characteristics	Glass fibre grid with alkali resistant SBR coating
Colour	grey
Fibre Type	E-glass fibre
Fabric Construction	Fibre orientation 0°/90° (bi-directional)
Packing	Roll length: 50m Roll width: 1000 mm
Shelf life	24 months from date of production if stored properly in undamaged original packaging in dry conditions at temperatures between +5°C and +35°C. Protect from direct sunlight.

Technical Data

Areal Weight Glass fibre	Total: 280 g/m ² ± 5% Warp (longitudinal): 145 g/m ² ± 5% Weft (transverse): 135 g/m ² ± 5%
Areal Weight with coating	Total: 360 g/m ² ± 3%
Fibre Density	2.6 g/cm ³
Finishing	Soft SBR coating
Stitch spacing	18.1 x 14.2 mm (center to center distance)

Mechanical / Physical Properties

Dry Fibre Properties	Tensile strength: 2'600 N/mm ² (measured on roving) Tensile E-modulus: > 80'000 N/mm ²
Grid Properties	Ultimate load: Warp (longitudinal): 77 kN/m Weft (transverse): 76 kN/m Elongation at break: Warp: ca. 4,10 % Weft: ca. 3,45 % Note: The above values are typical and indicative only. Effective values depend on the quality of application and the type of tensile testing procedure. Apply material reduction factors according to the relevant design standard.

System Information

System Structure	Sika® MonoTop®-722 Mur forms part of the Sika® Textile Reinforced Mortar System (TRM) which comprises of the following products: <i>Mortar for bonding and incorporation of the grid:</i> Sika® MonoTop®-722 Mur Cementitious mortar with low E-modulus <i>Fiberglass for structural strengthening:</i> SikaWrap®-350 G Grid Bi-directional glass fibre grid <i>Anchoring:</i> SikaWrap® FX-50 C Carbon fiber anchor or SikaWrap® FX-75 G Glass fiber anchor
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Application Conditions

Application Details

SikaWrap®-350 G Grid is embedded in Sika® MonoTop®-722 Mur.

Following application procedure is applied:

A first layer of Sika® MonoTop®-722 Mur is applied to the prepared substrate. Recommended minimum layer thickness is 5mm. SikaWrap-350 G Grid is embedded in the fresh first layer of mortar. A second layer of Sika® MonoTop®-722 Mur is applied to completely cover the reinforcement grid. Recommended thickness of the second layer is 5mm. Second layer should be applied fresh-on-fresh.

Finishing of fresh mortar surface according to project requirements using wooden or plastic float is possible.

For further information, please refer to the Method Statement "Textile reinforced Mortar", Ref. 850 41 008.

Application Details

Consumption

See Product Datasheet of Sika® MonoTop®-722 Mur

Substrate Quality

See Product Datasheet of Sika® MonoTop®-722 Mur

Substrate Preparation

See Product Datasheet of Sika® MonoTop®-722 Mur

Application Instructions

Application Method / Tools

See Product Datasheet of Sika® MonoTop®-722 Mur

Notes on Application / Limitations

See Product Datasheet of Sika® MonoTop®-722 Mur

Value Base

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Local Restrictions

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

Health and Safety Information

This product is an article within the meaning of Regulation (EC) No 1907/2006 (REACH). It contains no substances which are intended to be released from the article under normal or reasonably foreseeable conditions of use. Therefore, there are no registration requirements for substances in articles within the meaning of Article 7.1 of the Regulation.

Based on our current knowledge, this product does not contain SVHC (substances of very high concern) from the candidate list published by the European Chemicals Agency in concentrations above 0.1 % (w/w).

Legal Notes

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. 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 written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.



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