

MasterStrength NET 400 B

Primed basalt fibre mesh, used in combination with mortars from the **MasterCrete** range for low-thickness reinforcement of masonry and concrete structures.

Material description

MasterStrength NET 400 B is a 400 g/m² basalt fibre reinforcement mesh which, when used in combination with inorganic matrices such as the dedicated **MasterCrete** mortars, enables the creation of thin-layer strengthening systems for masonry and concrete structures, improving their mechanical performance through either localised interventions or more extensive works.

The mesh can also be applied with an organic matrix, such as the bonding resins from the **MasterStrength** range.

Main uses

MasterStrength NET 400 B basalt fibre mesh enables reinforcement work to be carried out using thin-layer systems applied to masonry and concrete structures.

Some examples of application are:

- Increasing the strength of masonry walls and concrete elements;
- Work on structures with a single or double curvature, such as arches or vaults;
- Anti-overturning systems for infill walls and partitions.

Features

- **The alkali-resistant nature of the primer** ensures high durability within inorganic matrices, as well as resistance to weathering;
- **Already primed and easy to cut**, it does not form a rigid system and can be applied easily even to substrates with non-planar, complex shapes;
- **High tensile strength** offered equally in warp and weft.

Consumption

For large-scale projects: approximately 1.15 m² of mesh per m² of surface to be treated; variable depending on the geometries involved.

For localised work: 1.0 m² of mesh per m² of surface to be treated.

Packaging and storage

MasterStrength NET 400 B is available in rolls 1.0 m high and 50 m long.

Keep the product in its original packaging in a dry, protected location at a temperature between +5°C and +30°C.

Preparation and method of application

Preparing the substrates

- Remove all the outermost layers, such as paint and plaster, from the existing surface of the masonry or concrete structure until the load-bearing structure to be reinforced is exposed.
- Any parts of the substrate that are coming loose must be restored using appropriate methods and materials.
- We therefore recommend cleaning all surfaces to be treated by means of low-pressure water washing. This operation will make it easier to obtain a surface that is saturated with water but dry, which is essential for the next application of the inorganic matrix intended to embed the mesh.

Preparing the mesh

Depending on the shapes to be covered, cut the **MasterStrength NET 400 B** mesh with a cutter or scissors.

To perform this operation correctly, ensure a minimum overlap of 15 cm between the various mesh sheets, in both the longitudinal and transverse directions.

Applying the first layer of the matrix

Once the appropriate **MasterCrete** mortar has been selected for forming the matrix of the reinforcement system, refer to the product technical data sheet for full details on its preparation.

Then apply a first layer of mortar with a minimum thickness of approximately 5-6 mm using a metal trowel or by spraying with a suitable plastering machine, calibrated according to the product used from the **MasterCrete** range.

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This application is understood to exclude any preliminary substrate levelling, which can be carried out using the same **MasterCrete** product.

Applying the reinforcement mesh

Immediately after applying the first layer of the matrix, while the mortar is still fresh, lay the previously cut to size **MasterStrength NET 400 B** mesh.

The mesh must be laid by gently pressing it into the fresh mortar with the help of a flat trowel, ensuring a minimum overlap of 15 cm between the various mesh sheets, both longitudinally and transversely.

Applying the second layer of the matrix

With the same **MasterCrete** product used for the first matrix layer, apply a second layer of mortar with a minimum thickness of approximately 5-6 mm using a metal trowel or by spraying with a suitable plastering machine, fully embedding the previously laid mesh.

Trowelling

Where a direct painted finish is required over the matrix, the finished surface should then be trowelled using a sponge trowel as soon as the mortar begins to set. The waiting time before trowelling depends on the weather conditions. Proper trowelling is essential to prevent the formation of surface microcracks caused by plastic shrinkage.

Use of connectors

The operations described above can be completed with the insertion of dedicated transverse connections from the **MasterStrength** range.

Ageing and maturation

It is recommended to cure surfaces exposed to the air for the first 24 hours using a wet method, especially in conditions of high ventilation, high or low temperatures or low humidity. Protect the work from any rain with plastic sheeting, and from direct sunlight and ice for at least 24 hours.

Application temperatures

Application environment temperature needs to be between +5°C and +35°C.

Warnings

- Do not apply directly on plaster, crumbly, mixed or painted surfaces.

Technical data

Product identification data	
Packaging	Rolls 1.0 m high and 50 m long
Mesh type	Basalt fibre with anti-alkali coating
Mesh size (wire spacing)	14 x 14 mm
Total weight	400 g/m ²
Equivalent thickness of weft and warp	0.063 mm

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Performance of MasterStrength NET 400 B

Feature	Specification	Product performance
Average tensile strength	Average value of warp and weft per unit width	> 75 kN/m
Axial stiffness	Average value calculated on the basis of tensile strength values	> 1700 kN/m

Safety instructions

For guidance on the correct and safe use, transport, storage and disposal of the product, please see the latest Safety Data Sheet (SDS).

Scan QR code to visit the product page and download the latest version of this technical sheet and any additional documentation.



Other services

For additional technical information, brochures, references, technical reports and technical assistance please visit www.master-builders-solutions.com/it-it or alternatively contact infomac@masterbuilders.com.

Disclaimer

Since 16/12/1992, Master Builders Solutions Italia Spa has been operating under a Certified Quality System compliant with the UNI EN ISO 9001 Standard. Furthermore, the Environmental Management System is certified according to the UNI EN ISO 14001 Standard and the Safety Management System is certified according to the UNI ISO 45001 Standard.

For further information, please consult the local Technician of Master Builders Solutions. The technical advice on how to use our products, either written or verbally given, are based on the current state of our scientific and practical expertise, and does not imply the assumption of any guarantee and/or responsibility for the final results of works executed using our products.

Therefore, the customer is not exempted from the exclusive task and responsibility of verifying the suitability of our products for the intended use and purposes.

This version supersedes all the previous ones.

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