

MasterFlow 150


Two-component fluid epoxy adhesive, not solvent-based, for bonding, construction joints and anchoring


MATERIAL DESCRIPTION

MasterFlow 150 is a two-component fluid epoxy adhesive, slightly thixotropic, non-solvent based, which guarantees high mechanical and chemical resistance and excellent adhesion to the most diverse construction materials.



In compliance with the European Regulation (EU No 305/2011 and EU No. 574/2014) the product is provided with the CE marking according to UNI EN 1504-4 and 1504-6 and the relative DoP (Declaration of Performance).

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|  1305 |
| EN 1504-4 |
| Epoxy resin adhesive for structural reinforcement with carbon fiber sheets |

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|---|
|  1305 |
| EN 1504-6 |
| Anchoring of reinforcing steel bars |

FIELDS OF APPLICATION

MasterFlow 150 has been designed to perform by casting:

- anchoring reinforcement bars, log bolts, connectors and metal profiles in concrete, masonry, natural stone and wood elements;
- bonding of the most used building materials such as concrete, steel, bricks, natural stone and wood;
- casting joints between fresh and hardened concrete.

FEATURES AND BENEFITS

The peculiar characteristics of the MasterFlow 150 epoxy adhesive are:

- excellent adhesion: this requirement, thanks to the specific non-solvent formulation of the product, allows to obtain monolithicity with the substrate even in the case of wet holes or in the case of casting joints;
- high mechanical performance both in compression and in traction;
- dielectricity: (a.c. 1012 \square m) essential property for isolation from stray currents or dispersions;
- resistance to the most common acids, alkalis, solvents and hydrocarbons;
- impermeability: the material is also suitable for permanent contact with water.

COVERAGE

- Resumption of casting and bonding: 0,9 ÷ 1,1 kg / liter.
- Grouting: 1.4 kg / liter of vacuum to be filled

PACKAGING

5 kg pack consisting of:

- comp. A, 4,68 kg.
- comp. B, 0,32 kg.

STORAGE

Store in a sheltered, cool, dry place (10÷30 °C) out of direct contact with sunlight, fire or naked flames. Should the temperature fall below 10°C the viscosity of the resin could increase and lumps form. In this case, before using the product, warm the containers (tightly closed) by standing them in hot water until the lumps disappear.

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| Technical Information | | | |
|--|---|---|-----------|
| Chloride content | <0.05% | | |
| Mixing ratio | A:100 B: 6,837 | | |
| Consistency | Pourable | | |
| Density, ASTM D1505-85 | 1,4 ± 0,05 kg/l | | |
| Pot life, ASTM C881/C881M; | 10°C:90 min 20°C:60 min 30°C:45 min | | |
| Workability | A 22°C: 90 min A 30°C: 35 min | | |
| Temperature of application | 5 ÷ 35°C | | |
| Packaging | <ul style="list-style-type: none"> ▪ comp. A,4,68 kg buck, ▪ comp. B,0,32 kg buck. | | |
| Coverage | <ul style="list-style-type: none"> ▪ Resumption of casting and bonding: 0,9 ÷ 1,1 kg / liter. ▪ Grouting: 1.4 kg / liter of vacuum to be filled | | |
| Essential characteristic in accordance to 1504-4 and 1504-6, with a dosage of water of 15.2% | | Performances | |
| Adhesion at 7 days | Resin-concrete | UNI EN 1542 | ≥ 3.5 MPa |
| | Concrete-resin-concrete | UNI EN 12615 | ≥ 10 MPa |
| | Resin-steel | ASTM D4541 | ≥ 10 MPa |
| | Concrete-resin-steel | UNI EN 12615 | ≥ 20 MPa |
| | Steel-resin-steel | UNI EN 12615 | ≥ 30 MPa |
| Compressive strength | ASTM D695 | 8 h > 15 MPa 24 h > 40 MPa 7dd > 70 MPa | |
| Elastic modulus | ASTM D695 | 8000 MPa | |
| Elastic modulus | ASTM D638 | 8000 MPa | |
| Direct tensile strength | ASTM D638 | 7gg > 15 MPa | |
| Flexural strength | ASTM D790 | 8 h > 10 MPa 24 h > 25 MPa 7dd > 40 MPa | |
| Thermal expansion coefficient | ASTM D696 | 2.93*10 ⁻⁵ °K ⁻¹ | |
| Glass transition temperature Tg | EN 12614 | 45 °C | |
| Thermal deflection temperature | ASTM D648 | 57°C | |
| Resistance to the extraction of steel bars - displacement relative to a load of 75 kN (mm) | EN 1881 | <0,6 | |

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APPLICATION SHEET

PREPARING THE SUBSTRATE

In the case of anchoring bars, etc. the hole must be at least 4 mm larger in diameter than the element to be anchored. Before casting the resin, the hole must be perfectly clean and dusted.

In the case of gluing and casting, the surfaces on which the resin will be poured must be prepared by sandblasting or scarifying and subsequently cleaned with compressed air. The substrates can also be slightly damp but must be free of water.

MIXING

Homogenize component B by effective manual stirring of the jar with which it is supplied.

Add component B to component A and mix everything with a low speed whip drill (about 200 rpm) for about 1 minute until a uniform gray color is obtained.

For applications with a thickness greater than about 1 cm, add to MasterFlow 150, in a ratio not exceeding 20%, a perfectly dry and well cleaned sand, with a minimum and maximum diameter respectively equal to 0.1 - 0.3 mm, or alternatively use MasterFlow 648

APPLICATION

MasterFlow 150 can be applied by casting. Do not apply the product at temperatures below 5 ° C as the polymerization time would be extremely lengthened.

In the case of casting joints, and in particular for temperatures between 5 and 20 ° C, the product can be diluted with a maximum of 5% diluent for epoxy E100. In these cases the product can be applied by brush with hard bristles, by roller, by spray using a pressure tank.

The resumption of casting must necessarily take place on the resin that has not yet hardened, respecting the following recoating times:

- 10 ° C within 3 hours;
- 20 ° C within 90 minutes;
- 30 ° C within 60 minutes



SAFETY INSTRUCTION

For information on the correct and safe use, transport, storage and disposal of the product, consult the most recent Safety Data Sheet.

OTHER SERVICES

For price analysis, specifications, supplementary brochures, references, reports and technical assistance, visit the website www.master-builders-solutions.com/it-it or contact infomac@mbcc-group.com.

Scan the QR code to visit the product page and download the latest version of this datasheet.



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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.

Master Builders Solutions Italia Spa

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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.