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OLYMPUS®

TECHNICAL DATA SHEET

OLY RESIN 10 HTG

Epoxy filler and structural adhesive

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The two-component epoxy system OLY RESIN 10 HTG is a thixotropic epoxy putty, CE-marked according to EN 1504-4 as structural bonding, solvent-free, specially designed for bonding FRP foils, impregnation of steel fabrics for SRP systems, bonding of metal plates and regularisation of substrates. The resin part is white while the hardener part is black. It can be applied by trowel on surfaces that have been previously prepared and where applicable suitably treated with OLY RESIN BASE DB.

The VOC emissions of the epoxy resins used in OLYMPUS FRP systems are certified in compliance with the Minimum Environmental Criteria (MEC), sections 3.2.8 and 2.5.1.

Characteristics	Typical value
Number of components	2, A (resin) e B (hardener)
Catalysis ration by weight	A:B=4:1
Curing time at 20°C	24 hours
Total curing time at 20°C	7 days
Pot life	23°C ≈ 50 min
Application temperature	+ 5 °C / +40°C
Glass transition temperature T_g EN 12614	+64°C
Density (A+B) UNI EN 2811-1	1,55 – 1,75 g/cm^3
Compressive strength	> 70 MPa
Adhesion to concrete	> 3 MPa (concrete breaking)

Performance according to EN 1504-4 - Products and systems for the protection and repair of concrete structures. Structural bonding

Characteristics	Typical value	Reference Legislation
Bond strength/adhesion	Tensile strength > 14 MPa	UNI-EN 12188
	Compressive shear strength at 50°C > 60 MPa at 60°C > 70 MPa at 70 °C > 80 MPa	UNI-EN 12188
Shear strength	> 12 MPa	UNI-EN 12188
Linear shrinkage	at 30°C ≤ 0,1%	UNI-EN 12617
Compressive strength	> 70 MPa	UNI-EN 12190
Durability	Specification exceeded	UNI-EN 13733
Compressive elastic modulus	> 2.000 MPa	UNI-EN 13412
Coefficient of thermal expansion	≤ $100x10^{-6}$ °C	UNI-EN 1770
Glass transition temperature	> 40°C	UNI-EN 11357-2-2013
Reaction to fire	D s1, d0	UNI-EN 13501-1
Dangerous substances		See SDS

Installation instructions for structural bonding

Add component B (hardener) to component A (resin) and mix at low speed with an electric mixer for approx. 3 minutes. (until a uniform product is obtained) It is recommended not to allow the hardened mixture to absorb too much air during the mixing phase. Apply *OLY RESIN 10 HTG* with a metal trowel on the substrate already treated with *OLY RESIN BASE DB* where applicable. After preparation, the product must be applied within the service life of the system. Apply *OLY RESIN 10 HTG* by trowel on the face of the sheet to be bonded to a thickness of approximately 1-2 mm. Manually arrange the previously cut-to-length foil according to the design pattern, making it adhere to the substrate and pressing the entire foil with an OLY ROLL aluminium roller to improve adhesion and eliminate any air bubbles. In hot weather, it is recommended not to expose the material to sunlight. In winter, if outdoor work is to be carried out at temperatures below 5 °C, it is recommended to heat the substrate and protect it against frost. The resin should be stored in a temperature-controlled environment.

Installation instructions SRP systems

Add component B (hardener) to component A (resin) and mix at low speed with an electric mixer for approx. 3 minutes. (until a uniform product is obtained) It is recommended not to allow the hardened mixture to absorb too much air during the mixing phase. Apply *OLY RESIN 10 HTG* with a metal trowel on the substrate already treated with*OLY RESIN BASE DB* where applicable. After preparation, the product must be applied within the service life of the system. In hot weather, it is recommended not to expose the material to sunlight. In winter, if outdoor work is to be carried out at temperatures below 5 °C, it is recommended to heat the substrate and protect it against frost. The resin should be stored in a temperature-controlled environment. Manually place the dry *OLY STEEL 750G* fabric previously cut to size and folded if necessary according to the design scheme, making it adhere to the substrate and pressing it with an OLY ROLL metal roller so that it is incorporated into the previous layer of epoxy grout. Apply a second layer of previously prepared *OLY RESIN 10 HTG* by spatula. If necessary, repeat the application of *OLY RESIN 10 HTG* until the fabric is perfectly covered. For subsequent layers, repeat the above steps except for the application of the primer.

Usage

Bonding foils and metal plates: 3 to 6 kg/sq.m.
SRP systems: 1.5 to 2 kg/sqm

Packaging

2-component pack in 5 kg pre-dosed buckets (Resin: 4 kg - Hardener: 1 kg)

Storage conditions

The product fears humidity, store in hermetically sealed containers, in a sheltered and dry place, with temperature between +15°C and +20°C. Under these conditions its stability is 12 months.

Warnings

Do not apply the product when rain is imminent, in the presence of fog and dew or at temperatures below + 5°C. Equipment used to prepare and apply the product must be cleaned with solvent (such as acetone) before hardening. *OLY RESIN 10 HTG* must be handled with care: use gloves, protective creams and goggles to avoid contact with skin and eyes. In case of contact with the eyes, wash thoroughly with warm water and consult a doctor. For applications in hot or cold environments, it is advisable to keep the product for at least 12 hours in an air-conditioned room (20°C) in order to facilitate mixing operations and not excessively affect the workability life of the system. This product must be handled and used by experienced operators. Processing residues must be hardened and disposed of as special waste.

This data sheet replaces and cancels previous versions.

The information in this data sheet corresponds to our current knowledge and experience. The data have been compiled with the utmost care and conscientiousness, without, however, any guarantee of accuracy or completeness and without any liability for the user's further decisions. The data in themselves do not entail any legal commitments or other secondary obligations. The data do not in principle exempt the customer from independently checking the product with regard to its suitability for the intended use. Our products are subject to continuous quality controls on both the raw materials and the finished product to ensure consistent quality. Our technicians and consultants are at your disposal for information, clarification and questions regarding the use and processing of our products, as well as for on-site inspections. The latest technical data sheets can be found on the internet at www.olympus-italia.com or can be requested from our offices.

Marking obligations are not related to the intrinsic nature of a given product, but to the purpose for which a specific material is used: before placing the order, it will be the customer's responsibility to submit all available documentation to the Works Department so that it can establish the suitability of the materials (in terms of certification and performance) in relation to the intended use.

To check the latest version of this technical data sheet, information, technical assistance and other structural reinforcement systems, please contact the Olympus technical department:
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Product for professional use

EPD CAM compliance study published on the website https://www.environdec.com

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