OLYMPUS®

TECHNICAL DATA SHEET

OLY RESIN BASE DB

Low-viscosity epoxy resin

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OLY RESIN BASE DB is a two-component epoxy resin formulated to consolidate porous and friable stone and concrete substrates, making the surfaces compact, dustproof and ideal for good anchorage of subsequent coatings. *OLY RESIN BASE DB* is supplied in two pre-dosed containers (A, resin + B, hardener). *OLY RESIN BASE DB* is CE marked according to EN 1504-4 as structural bonding. *OLY RESIN BASE DB* can be used as a bonding bridge with the substrate for FRP and SRP systems and can be applied with a roller or brush.

Characteristics	Typical value
Number of components	2, A (resin) e B (hardener)
Catalysis ration by weight	A:B=2:1
Curing time at 20°C	24 hours
Total curing time at 20°C	7 days
Pot life	23°C ≈ 35 min
Application temperature	+ 5 °C / +30°C
Glass transition temperatureT_g EN 12614	+60°C
Density (A+B) UNI EN 2811-1	1,05 ± 0,05 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 a 50°C > 60 MPa a 60°C > 70 MPa a 70 °C > 80 MPa	UNI-EN 12188
Shear strength	> 12 MPa	UNI-EN 12188
Linear shrinkage	a 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	$\leq 100 \times 10^{-6}$ °C	UNI-EN 1770
Glass transition temperature	> 40°C	UNI-EN 11357-2-2013
Reaction to fire	B – s1,d0	UNI-EN 13501-1
Dangerous substances		See SDS

Laying instructions

Add component B (hardener) to component A (resin) and mix at low speed with an electric stirrer 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 BASE DB* to the substrate using a brush or short-haired roller. The application is generally carried out in a single coat; if the substrate is highly absorbent, apply a second coat after the first has been completely absorbed. The quantity of material to be applied is approx. 250 - 300 g/m2. After preparation, the product must be applied within the service life of the system. *OLY RESIN BASE DB* can also be used for impregnating fibre ropes (strands) with the same preparation methods.

In hot weather, it is recommended not to expose the material to sunlight and to carry out priming during the cooler hours of the day. In winter, if work has to be carried out out outdoors, with temperatures below 5 °C, it is recommended to heat the substrate and protect it against frost. The resin must be stored in a temperature-controlled environment.

OLY RESIN BASE DB can be used as a bonding primer for laying FRP systems such as pultruded fabrics and foils and for laying FRP strands.

Usage

- Concrete substrates: 0,25 kg/mq;
- Masonry or wooden substrates: 0,3 kg/mq;
- Strand impregnation: 0,15 kg/m.

Packages

Two-component pack in 6 kg pre-dosed buckets (Resin: 4 kg - Hardener: 2 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 a solvent (such as acetone) before hardening. *OLY RESIN BASE DB* 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: *email: ufficiotecnico@olympus-italia.com – tel: 800.910272 – web: www.olympus-italia.com*

Product for professional use

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

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