

# EP FIX HP

## TWO-COMPONENT EPOXY PASTE WITH IMPROVED BONDING FOR STRUCTURAL REPAIRS

*Ideal for the bonding of FLEXIJoint flexible TPE tapes*



**EP FIX HP** is a two-component structural adhesive based on epoxy resins for structural bonding, monolithic repairs of cracks and section rebuilding, bonding of precast non load-bearing and load-bearing concrete elements, metal structural components and structural reinforcement (beton plaque). Thanks to its strong bonding properties and absence of shrinkage, **EP FIX HP** in combination with FLEXIJoint flexible TPE tape is particularly suitable for the waterproof sealing of cracks, expansion, construction and movement joints.

### BENEFITS

**EP FIX HP is a two-component epoxy adhesive used to improve structural bonding. Specific product features:**

- ✓ **THIXOTROPIC:** **EP FIX HP** is suitable for vertical application even in overhead positions and avoids dripping.
- ✓ **STRUCTURAL ADHESIVE:** **EP FIX HP** is shrinkage-free and ensures a structural bonding even between different types of material.
- ✓ **IT IS NOT ADVERSELY AFFECTED BY DAMPNESS:** **EP FIX HP** withstands moisture and can be applied even on damp substrates.
- ✓ **CHEMICAL RESISTANCE:** **EP FIX HP** has a high level of resistance to water, salts, hydrocarbons and to aggressive, acid, alkaline and saline solutions.
- ✓ **IMPROVED BONDING POWER:** **EP FIX HP** perfectly adheres to most common construction materials such as concrete, masonry, wood, steel, ceramic, resin coatings, natural stone and glass.
- ✓ **HIGH MECHANICAL STRENGTH:** **EP FIX HP** shows excellent compressive and tensile strengths even a few hours following the application.
- ✓ **WATERPROOF:** **EP FIX HP** is completely impermeable to liquids and water vapour.
- ✓ It contains corrosion inhibitors for metal surfaces.



### AREAS OF APPLICATION

**EP FIX HP** is used as a structural adhesive for:

- ✓ Bonding of FLEXIJoint flexible TPE tapes for the waterproof sealing of joints.
- ✓ Bonding of precast concrete elements.
- ✓ Anchoring machinery, bolts, plates, etc.
- ✓ Repairing and reinforcing between different types of material (steel, concrete).
- ✓ Rebuilding edges, joints, grouting and repairs also in overhead positions.
- ✓ Repairing structures in permanent contact with water.
- ✓ Grouting cracks and anchoring injectors.
- ✓ Sealing holes, cable strands, formworks, etc.
- ✓ Smoothing and bonding with carbon fibres in structural reinforcement cycles.
- ✓ Bonding iron or steel plates for static consolidation of reinforced concrete. (beton plaque).

## SUBSTRATES PREPARATION

### CLEANING

- ▶ Remove all loose and crumbling parts with low mechanical strength from the area to be restored taking care not to damage the structures.
- ▶ Remove stains, efflorescences, residues of oil, grease, varnish, covering materials, dust, dirt or water stagnation.
- ▶ The surface shall be cleaned by sandblasting and brushing and dedusted by compressed air. In the case of low mechanical strength apply hydro milling or mechanical treatments until you obtain a mechanically valid substrate.
- ▶ Metal surfaces must be cleaned by carefully removing all rust and residues of oil, grease, etc. We recommend sandblasting or brushing to white metal (Sa 2 or Sa3 at least). Avoid dew point conditions.

## PRODUCT PREPARATION

**EP FIX HP** is made of:

- ▶ A - base formulation
- ▶ B - hardener

Mix component B and component A with a spatula or with a suitable low speed mixer till getting a well-blended and free of lumps and air bubbles mix. Do not use partial quantities: a wrong mixing ratio could cause damage during the hardening process.

## WARNINGS

- ▶ Check the substrate resistance.
- ▶ Do not apply the product at environmental and substrate temperatures below +10°C or higher than +35°C.
- ▶ Do not apply if concrete has cured less than 28 days.
- ▶ Do not expose to direct sunlight or heat sources.

## HOW TO USE

The surface must be clean, dry and free of residues which might affect proper adhesion. **EP FIX HP** has a thick smooth paste consistency and must be applied by spatula or trowel. If used as an adhesive between elements of different material, **EP FIX HP** shall be applied on both surfaces to be bonded. These surfaces shall be bonded by applying a strong pressure with the help of clamps if needed; on vertical surfaces, use props and let it dry for at least 12 hours.

For the bonding of FLEXIJOUNT TPE tapes, please refer to the data sheet specifications.

### SAFETY INSTRUCTIONS

Use rubber gloves and safety glasses while applying and cleaning. Avoid contact of resin with skin, mucous membranes and eyes; if contact occurs, wash with plenty of water and neutral soap.

## PACKAGING AND STORAGE

EP FIX HP is available in:

- 5 kg pail (A) + 2.5 kg pail (B)

If the product is stored properly, indoors in a dry location, at a temperature of not less than + 10° C and not higher than 40° C, it maintains its original features for one year.



## PRODUCT FEATURES

|                        |  |
|------------------------|--|
| APPEARANCE             | Grey thixotropic paste                   |
| SPECIFIC GRAVITY       | Comp. A: 1,75 kg/l<br>Comp. B: 1,60 kg/l |
| SPECIFIC GRAVITY (A+B) | 1.69 kg/l                                |
| DRY SOLID CONTENT      | 100%                                     |
| STORAGE                | 12 months                                |
| PACKAGING              | 5 kg pail + 2,5 kg pail = (A + B) 7,5 kg |

## APPLICATION DATA

|  |  |
|--|--|
| MIXING RATIO BY WEIGHT                     | A:B=5:2,5  |
| WORKABILITY                                | 120 minutes at approx. 10° C<br>75 minutes at approx. 20° C<br>40 minutes at approx. 30 °C |
| POT LIFE 1 LITRE - ISO 9514                | 40 minutes   |
| TOTAL CURE TIME AT 20°C                    | 15 days  |
| TEMPERATURE OF APPLICATION                 | +10°C ÷ +35°C  |
| CONSUMPTION                                | approx 1.4 kg/m <sup>2</sup> per mm of thickness   |
| MAXIMUM THICKNESS FOR VERTICAL APPLICATION | 20 mm without dripping   |

## FINAL PERFORMANCE (20 °C - 65% R.H.)

| PERFORMANCE CHARACTERISTIC  | TEST METHOD  | REQUIREMENTS ACCORDING TO EN 1504-4  | PRODUCT PERFORMANCE         |
|---|--------------|--|-----------------------------|
| COMPRESSIVE STRENGTH (+23°C)  | UNI EN 12190 | ≥30 MPa  | > 50 MPa after 10 days      |
| FLEXURAL STRENGTH (+23°C)   | EN 196-1     | None   | > 30 MPa after 10 days      |
| ADHESION TO CONCRETE UNI EN 1766 MC (0.40) - 7 days                         | EN 1542      | Unstated   | > 3 MPa (substrate failure) |
| SUITABILITY FOR APPLICATION ON VERTICAL SURFACES AND INTRADOSES             | EN 1799      | The material must not drop by more than 1 mm when applied in thicknesses less than 3 mm. | Meets specifications        |
| RESISTANCE TO FIRE  | EN 13350-1   | Declared by the manufacturer   | B-s1, d0                    |
| PERFORMANCE REQUIREMENTS FOR STRENGTHENING USING BONDED PLATE (TABLE. 3.1)  |              |  |                             |
| SHEAR STRENGTH  | EN 12188     | ≥ 12 MPa   | 16 MPa                      |
| PERFORMANCE REQUIREMENTS OF THE ADHESIVE FOR MORTAR AND CONCRETE (TAB. 3.2) |              |  |                             |
| SHEAR STRENGTH AFTER 7 DAYS   | EN 12615     | 6 MPa  | 12 MPa                      |
| OPEN TIME ON MC (0.40) CONCRETE - EN 1766                                   | EN 12189     | Declared by the manufacturer   | 30 min                      |

### Legal notice - SLCMP version dated 01.03.2017

In the technical specifications herein, Draco Italiana s.p.a. used the indicators therein specified, with the relevant standards.

Please check if this Sheet and the figures therein contained apply to the product batch you are interested in or if they have been overridden by any later release. If in doubt, check whether this Sheet matches the one applicable at the time of finalising the sales agreement, at [www.draco-edilizia.it](http://www.draco-edilizia.it), and/or contact our Engineering Department.

No advice provided by our staff, either verbally or in writing at your request, about the potential applications of the Products shall be binding under the sales agreement or shall be considered an integral part of the agreement. Such advice is based on our experience and on the best available practical and/or scientific knowledge; as such, it shall not be binding or conditional on the buyer or user. Please try our products first to find out whether they are fit for your intended use or application; in any case, you shall be solely responsible for your choice.