

## **EPOSHIELD INJECT W** **2K-EPOXY INJECTION RESIN** **FOR CRACKS >3mm WIDE -** **BONDING AGENT**



### DESCRIPTION -PROPERTIES

The 2-component epoxy resin **EPOSHIELD INJECT W**, does not contain solvents. Features high resistance to flexural and compression strength and has excellent adhesion to concrete and steel. It can be applied without

problems even on damp substrates. It is classified as a structural bonding agent for mortar or concrete according to EN 1504-4 and as a product for concrete injection, according to EN 1504-5.

### APPLICATION FIELDS

It is used injected in cracks >3 mm wide for bonding and restoring the monolithic structural element. It is also used as a bonding key for bonding fresh concrete or mortar to old hardened concrete, mortar or metallic surfaces.

Additional **EPOSHIELD INJECT W** is suitable for implantation and anchoring of reinforcement to existing structural components.

### APPLICATION

The substrate must be sound, free from dust, dirt, oil, free from loose particles and without standing water. Mix all the quantity of the hardener (component B) with all the quantity of the resin (component A). For better stirring it is recommended the use a low speed mixer for 2-3 minutes. Stirring should be done carefully from the bottom to the top and to the container walls. Before use allow the mixture to stand for a few minutes. The ideal application temperature is +15°C to +25°C. When a smaller quantity is required then add in a clean container 5 parts of component A and 1 part of component B. For bonding fresh concrete onto old concrete with **EPOSHIELD INJECT W** use a brush or roller over the next 70 to 90 minutes (depending on the atmospheric conditions) while the epoxy resin is still fresh and prime the concrete surface. For using **EPOSHIELD INJECT**

**W** as an injectable resin, first seal the crack with epoxy pasty **CARMYPOX EG-10** and place the nozzles along the crack at a distance of 20cm bonding them again with **CARMYPOX EG-10**. Then after **CARMYPOX EG-10** has hardened begin injecting the material by pressing. When the crack is horizontal starting from one end and when it is vertical from the lowest point. The injection of **EPOSHIELD INJECT W** is done until saturation of each nozzle and then continue to the next. After 24 hours that the **EPOSHIELD INJECT W** has hardened, we break the nozzles. For implantation/anchoring of reinforcement rods the holes should be dissected in big depth and in diameter greater than the diameter of rods. On vertical surfaces the holes should be angled. Then clean the holes with compressed air and fill with **EPOSHIELD INJECT W** so as the material to flow out after installation of the rods.

### CONSUMPTION

1,4-1,5kg **EPOSHIELD INJECT W** for an empty hollow of 1lt. Approximately 0,6 kg/m<sup>2</sup>

### PACKAGING

Available in packages (A + B) of 1kg.

### STORAGE

Store in sealed containers in a dry environment at temperatures between +5°C and +35°C for 12 months from date of production. Protected from frost and sun.

### TOOLS CLEANING

With solvent **LS-703**, immediately after use.

# EPOSHIELD INJECT W

## 2K-EPOXY INJECTION RESIN FOR CRACKS >3mm WIDE - BONDING AGENT



| TECHNICAL CHARACTERISTICS   | UNITS                | STANDARD     | VALUE  |
|---|----------------------|--------------|--|
| Form  |                      |              | emulsion   |
| Color of components   |                      |              | A: grey<br>B: amber  |
| Color (A + B)   |                      |              | grey   |
| Viscosity   | (mPa.s)              | at +23°C     | 290 ± 15   |
| Mixing ratio (A:B)  |                      | By weight    | 100:20   |
| Pot life  | (min)                | at +20°C     | ≈ 40   |
| Minimum temperature for hardening   | (°C)                 |              | +8   |
| Final strength  |                      | at +23°C     | After 7 days   |
| <b>EN 1504-4, as a structural bonding agent:</b>  |                      |              |  |
| Adhesion for hardened concrete to hardened concrete and for fresh concrete to hardened concrete |                      | (EN 12636)   | Pass (fracture in the concrete)  |
| Shear adhesion strength for hardened concrete to hardened concrete                              | (N/mm <sup>2</sup> ) | (EN 12615)   | 15,9   |
| Compressive strength  | (N/mm <sup>2</sup> ) | (EN 12190)   | ≥ 90,0   |
| Shrinkage   | (%)                  | (EN 12671-1) | ≤ 0,1  |
| Sensitivity to water  |                      | (EN 12636)   | Pass   |
| Modulus of elasticity in compression  | (N/mm <sup>2</sup> ) | (EN 13412)   | 2300   |
| Modulus of elasticity   | (N/mm <sup>2</sup> ) | (EN 527-1)   | 1650   |
| Tensile strength  | (N/mm <sup>2</sup> ) | (EN 527-2)   | 27,3   |
| Elongation  | (%)                  | (EN 527-2)   | 5  |
| Coefficient of thermal expansion  |                      | (EN 1770)    | 94,6 x 10 <sup>-6</sup>  |
| Durability  |                      | (EN 13733)   | Pass   |
| <b>EN 1504-5, as an injection product for concrete:</b>   |                      |              |  |
| Adhesion by tensile bond strength   | (N/mm <sup>2</sup> ) | (EN 12618-2) | 5,9  |
| Adhesion by slant shear strength  |                      | (EN 12618-3) | Monolithic failure   |
| Workability   |                      | (EN 12618-2) | Minimum crack width: 3mm<br>Suitable for injection into dry and slightly damp medium |
| Corrosive behavior  |                      |              | No   |

*Note: The measurements were made in laboratory environment under temperature of +23°C, Relative Humidity 50 % and without ventilation. It is possible to vary depending on the conditions prevailing at the worksite, such as temperature, humidity, ventilation, absorbability of the substrate.*

The technical information and instructions contained in the present brochure and referring to the application and end use of Thrakon products are based on the up to now know-how and experience of the Company with regards to the products and are provided in good faith as long as such products are stored, used and applied as per Thrakon recommendations. Due to the inability, on our part, to directly inspect the conditions prevailing at the worksite as well as the application procedures of the product, the Company does not provide any guarantee with regards to the adequacy of its products for specific purpose while the Company shall not bear any legal responsibility based on the information stated in the present brochure or any other written, oral, or otherwise provided recommendations and instructions. The users of the products are advised to perform a limited surface testing of the products adequacy for the eventual application and use intentions. Thrakon reserves the right to modify the features of its products without prior notification. All orders shall be approved only following acceptance of the above and of the eventual Commercial Policy terms of the Company. The issuance of the present brochure voids any prior version.