

WRM 510 **IRON REINFORCEMENT PRIMER**

ACCORDING TO
EN 1504-7

DESCRIPTION

WRM 510 product is a material suitable for the application as a corrosion protection coating on iron reinforcement and the priming of concrete before the application of the repairing materials. WRM 510 is a one-component product and requires only water for its preparation. After mixing with water, a liquid paste, is produced, which is easy to apply using a brush both on

metallic surfaces and on concrete surfaces. It is a non-shrinkable material with optimum cohesion with the steel reinforcement and the concrete. It consists of special specification cement, quartz aggregates with high silicone dioxide content and of chosen granulometry, resins and special admixtures.

FIELDS OF APPLICATION

WRM 510 is suitable for:

- the anti-corrosion protection of steel reinforcement.
- Priming of concrete, iron and other structural elements prior to the application of repairing materials.

ADVANTAGES - FEATURES

- Excellent anti-corrosion protection of steel reinforcement
- Strong adhesion to the substrate
- Optimum protection against water penetration
- Optimum protection against chlorides
- Zero shrinkage
- High strengths
- Optimum workability
- It is produced with quartz sand
- Resistance to ageing
- Resistance to oils and solvents

SUBSTRATE PREPARATION

Remove the worn parts of the concrete until you reach a healthy substrate. Reveal the metallic reinforcement completely at the places to be repaired, in order to enable its coating with the WRM 510 primer. Then clean the reinforcement from rust using a shipping hammer, brush, sand blast or pneumatic pointed chisel tool depending on the size and extent of the corrosion. If there are even

concrete surfaces and repairing materials are going to be applied, you must make them rough enough with a chisel. Finally wash and clean the surfaces (reinforcement and concrete) with water under pressure. The concrete surfaces on which the WRM 510 product shall be applied must be saturated and the surplus water must be removed.

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 under the eventual Commercial Policy terms of the Company. The issuance of the present brochure voids any prior version.



APPLICATION

In a clean container add 5.5-6.7 litres of clean water and gradually empty the content of the bag while mixing continuously, in order to produce a homogenous mass of mortar. Leave the mixture to mature for 3 min and mix again briefly. During the application you must also mix gradually. After the preparation of the mixture do not add additional water to correct the workability of the mortar. This shall lead to a decrease of resistances and to the increase of its shrinkage. Make sure to produce as much mixture as you can use, depending on your time, whereas any surplus set mixture must be thrown away and new mixture must be prepared. The application of the prime coating material is performed using a hard brush aiming at the complete coating of the iron

reinforcement and the concrete surfaces that will come in contact with the repairing materials, with a 1-2 mm thickness. During application, you must make sure to remove the air pockets and not to hold any air bubbles on the concrete and the reinforcement surfaces. The prime coated surfaces must be protected from rapid evaporation and particularly during the summer months, avoid cracking, by slight wetting or by covering with a wet cloth. The product must be applied when the ambient temperature is between +5°C and +35°C and not under rain. When the temperature is high, the strength develops faster, while the workability of the material decreases. In low temperatures, the strength development is delayed.

CONSUMPTION

- For application on reinforcement elements: 0,06-0,12kg/linear meter.
- As a bonding layer: 2,0 kg/m² for two layers.

PACKAGING - STORAGE

The product is packaged in 5Kg plastic bags and in 1Kg steel container. It is stored sealed in a dry environment with temperature above 0°C for 12 months from the production date.

CLEANING OF TOOLS AND MACHINES

With plenty of water immediately after use.

NOT RECOMMENDED

The application of the product is not allowed:

- When there is a frost forecast for the 24
- hours following the application of the product.
- Under wet conditions (like rain).
- On substrates directly exposed to intense solar radiation or on warm substrates.

PRECAUTIONS

The WRM 510 product contains cement and reacts with water to produce an alkaline solution. For this reason protect your eyes and skin. In case of contact rinse with plenty of water. In case of contact with eyes seek medical advice immediately. Read the information on

the label and in the product's Technical Brochure before use. Wear appropriate protective clothing and gloves. The product's Safety Sheet is available to professionals upon request.

WRM 510

IRON REINFORCEMENT PRIMER

ACCORDING TO THE EUROPEAN STANDARD EN 1504-7

| TECHNICAL CHARACTERISTICS | UNITS | STANDARD | VALUE |
|------------------------------------|-------------|------------|------------|
| Appearance | | | dry powder |
| Color | | | grey |
| Strength temperature | (°C) | | -30 to +90 |
| Maximum grain size | (mm) | | 0,5 |
| Working time | (min) | EN 1015-9 | 30 |
| Maturing time | (min) | | 3 |
| Setting time | (min) | EN 196-3 | 5-7 |
| Compressive strength | (N/mm²) | EN 1015-11 | 26-28 |
| Flexural strength | (N/mm²) | EN 1015-11 | 7-9 |
| Dry bulk density | (Kg/l) | EN 1097-3 | 1,30-1,40 |
| Bulk density of fresh mortar | (Kg/l) | EN 1015-6 | 1,65-1,75 |
| Shear adhesion | (pass/fail) | EN 15184 | pass |
| Corrosion protection | (pass/fail) | EN 15183 | pass |
| Adhesion to substrate | | | excellent |
| Resistance to humidity and vapours | | | excellent |
| Resistance to ageing | | | excellent |
| Resistance to oils and solvents | | | excellent |
| Shrinkage | | | no |

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

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