

# YAPIFINE MEND® POWER

## Coarse Structural Repair Mortar – R4



EN 1504-3



### Product Definition

Cement based, single component, waterproof, non-shrinking structural repair mortar with coarse aggregate and fibre reinforcement including performance and workability boosting chemical additives.

### Areas of Use

- Any kind of industrial, reinforced concrete building
- Floorings on special coverings and surface repairs for areas with light or medium traffic load
- Filling tension gaps (rod clearances/tie-rod holes) and core spaces in concrete buildings,
- Repairing concrete that is obtained via moulding during any kind of construction work and repairment of cracks,
- Engineering constructions such as subway, motorway, dam etc.,
- Repairment, restoration and reinforcement projects,
- Repairing surface disorders of 10 – 40 mm thick at once.

### Advantages

- Easy to apply.
- Suitable for vertical and horizontal applications.
- Not affected by humidity due to not having any metal content.
- Waterproof.
- Resistant to sulphate and chlorine.
- Does not cause corrosion.
- Resistant to carbonation.
- Can be used in contact with reinforcement due to chloride-free content.
- Does not shrink.
- Ensures high compressive strength.
- Does not cause cracking and dusting.
- Resistant to freeze-thaw cycle.

### Technical Specifications

|                                  |                        |                                |  |
|----------------------------------|------------------------|--------------------------------|--|
| Appearance                       | Grey powder            | Elastic Modulus                | > 20 Gpa                                     |
| Pot Life                         | min. 20 minutes        | Capillary Water Absorption     | ≤ 0.5 kg/(m <sup>2</sup> .h <sup>0.5</sup> ) |
| Application Temperature          | Between +5°C and +30°C | Compressive Strength (28 days) | ≥ 60 N/mm <sup>2</sup>                       |
| Service Temperature              | -30°C /+80°C           | Flexural Strength (28 days)    | ≥ 10 N/mm <sup>2</sup>                       |
| Application Thickness            | max. 40 mm per layer   | Adhesive Strength (28 days)    | ≥ 2 N/mm <sup>2</sup>                        |
| Time Before Use                  | 1 day                  | Chloride Ion Content           | ≤ 0.05 %                                     |
| Restrained Shrinkage / Expansion | ≥ 2 N/mm <sup>2</sup>  | Reaction to Fire               | A1   |

\* Hereby technical values and product application instructions are obtained in the wake of tests conducted in environment of +23±2°C temperature with relative humidity of %50±5. Higher temperatures will shorten the time span, while lower temperatures will extend it.



#### Packaging

25 kg kraft bag



#### Consumption

Powder consumption of 1.80 ± 0.2 kg/m<sup>2</sup> for 1 mm thickness.

### Surface Preparation

The surface should be cleaned of all residual materials such as dust, oil, dirt, paint, curing materials, bitumen and other foreign substances that would prevent adhesion.

The plaster and weak particles that do not adhere to the surface well enough should be removed from the surface prior to the application.

Highly absorbant surfaces should be saturated with water before the application. It should be paid attention to that there are no water puddles on the surface as well.

### Mixture Preparation

25 kg of YAPIFINE MEND POWER is slowly poured into 3.5-4.5 liters of clean water. Preferably with a low speed mixer, it is mixed with the water for a minimum of 5 minutes up until when a homogeneous mixture is obtained.

The prepared mortar is left to develop for 3 minutes after which is then lastly stirred for another 2 minutes.

The fresh mortar should be used within 20 minutes

### Application Information



Applied to the surface in the appropriate width with the help of a trowel. After the application the surface needs to be kept damp for the next 24 hours. Applications should be done layer by layer where the application thickness is larger than 40 mm and between each layer a minimum of 3 hours should be waited. After the application, the surface should be kept damp for 2-3 more days.

### Application Conditions

Should not be applied to surfaces that were exposed to sunlight for too long or to surfaces that are too hot or frozen. Should not be used in contact with liquids which have a pH level lower than 5.5.

In large surfaces, the last layer should not be used as a concrete tiling coating.

Should not be applied when the ambient temperature is not within the values of +5°C and +30°C.

The application area should be protected from the effects of wind and direct sunlight.

The final consumption amount might vary depending on application conditions and surface characteristics.

### Shelf Life

The shelf life of the product is 12 months when it is stored on wooden pallets in a cool, dry and moisture free environment with an ambient temperature between +10°C and +25°C.

### Safety Precautions

The operator should be wearing proper work attire, goggles, mask and protective gloves appropriate to work and worker safety regulations. In case of contact with the eyes or accidental ingestion of the product seek immediate medical attention. Rinse with plenty of water in case of contact with the skin. Since it's cement based, do not breathe. For further information on the safe handling of this product please read the Safety Data Sheet (SDS).