

YAPIFINE SECURE®

Non-Shrink Grout Mortar – R4



EN 1504-3



Product Definition

Cement based, single component, non-shrinking, fluid grout mortar with high adherence and strength.

Areas of Use

- Both indoors and outdoors,
- Assembly of prefabricated concrete construction elements,
- Engineering constructions such as subway, highway, dam etc.,
- As fluid filling in hard-to-reach places,
- Fixing steel columns and poles,
- Fixing any kind of industrial machinery,
- Filling concrete cracks and grooves,
- Production of partitions and column heads

Advantages

- Easy to apply.
- Thanks to fluid structure, settles automatically and easily penetrates into void and cracks.
- Available for pumping or pouring.
- High compressive strength.
- Perfect adherence to concrete, iron and steel.
- Offers early compressive strength.
- Resistant to freeze-thaw cycle.
- Can be used in contact with reinforcement due to chloride-free content.
- Application thickness of 10 – 75 mm.

Technical Specifications

Appearance	Grey powder	Elastic Modulus	> 20 Gpa
Pot Life	min. 30 minutes	Capillary Water Absorption	≤ 0.5 kg/(m ² .h ^{0.5})
Application Temperature	Between +5°C and +30°C	Compressive Strength (28 days)	≥ 60 N/mm ²
Service Temperature	-30°C /+80°C	Flexural Strength (28 days)	≥ 9 N/mm ²
Application Thickness	max. 75 mm per layer	Adhesive Strength (28 days)	≥ 2 N/mm ²
Time Before Use	1 day	Chloride Ion Content	≤ 0.05 %
Restrained Shrinkage / Expansion	≥ 2 N/mm ²	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

~2 kg of powder for 1 litre of mortar.

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. The surface should be cleaned and prepared by means of appropriate mechanical surface preparation techniques such as high-pressure water jet, roughening, sandblasting etc. For applications with mould, make sure the moulds are clean and impermeable, before fixing them as required. If there is water leakage in application area, the leakage should be drained by means of appropriate stopper. 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 3-4 liters of clean water. The water should have a temperature of 20-25°C. Preferably with a low speed mixer, it is mixed with the water for a minimum of 3 minutes up until when a homogeneous mixture is obtained. The prepared mortar

is left to develop for 2 minutes after which is then lastly stirred for another 30 seconds.

Application Information

The prepared mortar should be poured into the molds without delay, just enough to create a thickness of between 10mm and 75mm. In order to prevent air from getting trapped inside, the mortar should be poured into the mold from one side and without interruption. During the application there should not be any air bubbles inside the product. Since the air bubbles would inhibit the surface adhesion of the product they would reduce the adhesion strength. In such cases, the placement of the mortar should be done with a steel stick. Resting time between layers is 3 hours. Second layer is applied only after the first layer is finished drying/setting. The prepared mortar should be used within 20-25 minutes.

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 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. After application,

carry out curing on surface with YAPIFINE CURE ACR in order to prevent premature drying. Do not use for patch repair. The mortar should not be subject to vibration until it sets. Moulds can be removed after 24 hours. In machinery assemblies, machines should not be run until the mortar is set. The final consumption amount might vary depending on application conditions and surface characteristics.

Shelf Life

The shelf life of the product is 1 year (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).