

Cement Based Structural Repair Mortar

Cement based, single-component, polymer-modified, high-performance, R3 class, thixotropic structural repair mortar.

Advantages

- It has high adhesion strength.
- It can be applied up to 5 – 40 mm thickness.
- It is thixotropic and does not sag in overhead applications.
- It provides the opportunity to make surface correction with waterproofing and high-strength chamfer application before waterproofing applications.
- It provides vertical and horizontal repair of concrete structural elements.

Field of Application

On the interior and exterior facades of all buildings, underground, above-ground, underwater floors; chamfer application, repair, surface smoothing before waterproofing or final coating; It is used in the repair of concrete and reinforcements damaged as a result of corrosion of reinforcing irons.

Technical Data

Application Thickness
5 - 40 mm

Single-coat Application Thickness
10,0 mm

Public Works Item No
10.300.2071

Concrete Adhesion Strength
(28 days)
 $\geq 1,50 \text{ N/mm}^2$

Basınç Dayanımı
(28 days) $\geq 25,00 \text{ N/mm}^2$

Pot Life
60 mins

Capillary Water Absorption
 $\leq 0,50 \text{ kg.m}^{-2}.\text{h}^{-0,5}$

Pre-application Surface Application

Concrete surfaces:

The surface must be clean, dry and free of mold oils. In order to detect soils with low adherence, the floor should be checked with the help of a hammer. Weak parts should be torn off the floor, leaving open corners at the edges of the place to be repaired. Rusty reinforcing bars should be completely uncovered. Before the application, the surface must be moistened and saturated with water in very hot and windy weather.

Reinforcing bars:

Rust on the irons should be cleaned with the help of a steel wire brush and cleaned of dust. The contact of the reinforcing irons with the concrete should be cut off and at least 2 layers of anti-corrosion and binding coating primer should be applied with the help of a brush. The next application should be done while the material is still wet, in the form of wet on wet.

Method of Application

Approximately 4.25 – 5.00 litres of clean water should be added to a 25 kg bag of YAPBUILT RM 420 and mixed with a trowel or a low-speed hand mixer until homogeneous. The mixture should be left for 2 minutes before application.

YAPBUILT RM 420 should be applied evenly over the entire surface with the help of a steel trowel. If more than one coat is to be applied, 3 hours should be waited between coats and the surface should be moistened before the next coat is applied. The total thickness should not exceed 40 mm. Surface smoothness should be ensured with a plastic trowel or damp sponge. After application, the surface should be moistened for 2-3 days.

Water should not be added to the hardening mortar.

Cement-based Structural Repair Mortar

Post-Application Care and Recommendations

In the application of **YAPBUILT RM 420**, if the ambient temperature is below +5°C or above +35°C, suitable temperatures should be expected. It should not be applied in extremely hot, rainy, or windy weather. It should not be applied on surfaces that are frozen, melting or in danger of frost within 24 hours. Single layer application thickness should be max 10.0 mm. Water and new materials should never be added to the mixture that has started to dry. It is not applied on plaster, old painted surface, aerated concrete. After the application, the tools and equipment used should be cleaned with water. Once hardened, **YAPBUILT RM 420** can only be mechanically cleaned from the surface.

Storage and Shelf Life

It should be stored in a clean, dry and moisture-free environment between +5°C and +35°C, away from direct sunlight. It must be protected against water, frost and severe weather. It should be stored in stacks of no more than 10 layers. Provided that the specified storage conditions are complied with, the storage life is a maximum of 12 months from the date of manufacture.

Consumption

An average of 1.80 – 2.10 kg/m² **YAPBUILT RM 420** is used for 1 mm application thickness.

Safety Precaution Information

First, all necessary Occupational Health and Safety measures should be taken in the areas where the application will be done, and the procedures should be carried out by people who have technical knowledge and equipment. Occupational Health and Safety instructions must be followed in all applications. In accordance with the Occupational Health and Safety instructions, it is obligatory to use all occupational safety equipment such as work clothes, protective gloves/goggles/masks during the application. It is necessary to ventilate the work site. Warehouses and stock areas should not be approached with fire. Contact of the product with skin and eyes should be strictly avoided. In such a case, the area where the product comes into contact should be washed immediately with plenty of water, and medical help should be sought immediately. Food and beverages should also not come into contact with the product. The product should be stored and protected in places away from children. For more information, the Material Safety Data Sheet (**MSDS**) should be reviewed. In addition, the application of the product should be done by people with sufficient technical knowledge, equipment, and experience. The responsibility in this regard belongs exclusively to the user.

Legal Responsibility

All information provided in this information sheet is advisory only. All products should be used by people with technical knowledge and suitable equipment, considering the recommendations. YAPKİM Yapı Kimya San. A.S. cannot be held responsible for any consequences that may occur during or after usage. This document is valid until a new one is issued and invalidates the old editions. YAPKİM Yapı Kimya San. A.S. may make changes in the content of the product. It is imperative to take safety precautions during product use. These measures are not just those listed above, and it is the sole responsibility of the user to take all security measures.

Technical Data Sheet
TDS.BUILD.005
Edited:18.07.2023
Revision No.:001



EN 1504-3
Class R3