

## HYDRAREP 460

Natural Hydraulic Lime-Based Repair Mortar

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### DESCRIPTION

HYDRAREP 460 is a high-strength, thixotropic repair mortar developed for historical structures. It is based on natural hydraulic lime, contains pozzolanic additives, natural minerals, and fibres, and is free of cement.

### AREAS OF USE

- Jacketing of arches, vaults, and masonry walls
- Repair and reinforcement of walls, plaster, and masonry foundations
- Installation of carbon rods in wall joints
- Used as a repair mortar for floor repairs or thick jacketing by adding aggregate.

### ADVANTAGES

- Cement-free
- High adhesion and mechanical strength
- Low content of water-soluble salts
- Easy to prepare and apply
- Breathable, high water vapour permeability
- Low capillary water absorption
- High resistance to efflorescence

### APPLICATION METHOD SURFACE PREPARATION

Surfaces of historic masonry to be repaired or plastered must be solid, dust-free, and clean. Remove any oil, grease, rust, or substances that may weaken adhesion. Pre-moisten the wall surface to improve adhesion and setting. Any active water leaks should be plugged and drained. Free-standing water should not be present.

## Mixing

Add the appropriate amount of clean water to a mixing bucket. Gradually add HYDRAREP 460 while mixing at 400–600 rpm until a lump-free, homogeneous mixture is achieved (approx. 4 minutes). Let the mix sit for 4 minutes, then remix for 30 seconds before application.

- **Mixing Water Ratio:** 4.0–5.0 L per 20 kg

## Application


Apply the prepared mortar with a trowel in layers between 1–5 cm thickness. Once the mortar begins to stiffen, sprinkle water and finish with a steel or wooden trowel.

For multilayer applications, each layer (max 1–1.5 cm) should be applied after the previous one has set, and the previous layer should be pre-moistened before applying the next.

By adding 30–35% by weight of clean, washed aggregate (5–20 mm grain size), the mortar can be modified for screed or thick applications. Adjust water content (by 10–15%) if needed.

For large exposed areas—especially in hot, dry, or windy conditions—protect against rapid evaporation for 24–48 hours using wet burlap or water.

## TECHNICAL PROPERTIES

Composition	Pozzolanic Lime & Special Graded Natural Aggregate	
Water Vapor Permeability EN1745	$\mu < 35$	
Water Soluble Salts UNI 11087	$SO_4 < \%1$ $Na^+ < \%0,05$ $K^+ < \%0,05$	
Electrical Conductivity	$< 80 \mu S/cm$	
Capillary Water Absorption UNIEN 1015/18	$0.2 kg \cdot m^{-2} \cdot mIn-0,5$	
Modulus of Elasticity UNIEN 13412	$16,000 N/mm^2$	
Application Temp. Range	$+5^{\circ}C +40^{\circ}C$	

Values are based on conditions of 23°C and 50% relative humidity.

**CONSUMPTION:** 17.0 kg dry mortar per  $m^2$  per 1 cm thickness.



## IMPORTANT CONSIDERATIONS

- Ambient and surface temperatures should not be below +5°C or above +40°C
- During setting, temperatures must not fall below the minimum threshold
- Protect exterior applications from sun, wind, rain, and frost for the first 24–48 hours

## TOOL CLEANING

Clean tools with water immediately after use. Once hardened HYDRAREP 460 can only be removed mechanically.

**PACKAGING:** 20 kg bag

## STORAGE

Store in a dry, cool (between +5°C and +35°C), and enclosed environment in unopened original packaging.

## SHELF LIFE

12 months from the production date under appropriate storage conditions.

## SAFETY RECOMMENDATIONS

Standard safety precautions for chemical products should be followed. Wash hands with plenty of water after work, and avoid consuming food or smoking while using. Refer to the Material Safety Data Sheet (MSDS) for complete safety and handling details. Disposal must comply with local regulations and is the responsibility of the end user.

## LEGAL NOTICE

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**2765 HYDRAREP 460**

**DOP NO: 995-1526**

TS EN 998-2

Structural repair mortar developed for  
masonry structures

Compressive Strength	M10
Bond Strength	$\geq 0,15 \text{ N/mm}^2$
Water Absorption	$< 0,5 \text{ kg/m}^2\text{min}^{0,5}$
Water Vapor Permeability	15/35 $\mu$
Thermal Conductivity	$< 0,83$ ( $\lambda_{10, \text{kuru}}$ )W/mK
Cement Content	Cement-free