# YHRepair-2516

**Multi-Functional Waterplug**






## DESCRIPTION

YHRepair-2516 is a ready to use, quick-setting, portland-cement-based hydraulic repair mortar that instantly stops running water through holes or cracks in concrete or masonry. It is a powder that typically sets in 3-5 minutes when mixed with clean water.

## WHERE TO USE

It is ideal to repair non-moving (static) cracks and holes with running water or moisture seepage. It is highly effective for emergency repairs in critical infrastructure such as underground utility tunnels, basements, retaining walls, water supply pipelines, dams, and equipment foundations. Additionally, it is particularly well-suited for strengthening critical waterproofing applications, such as sealing internal corners of walls and floors, as well as areas around pipe penetrations, prior to applying waterproof materials in kitchens and bathrooms. It can also be used for exterior wall waterproofing.

## CHARACTERISTICS AND PACKAGING

| Item | Description |
|---|---|
| Packaging | 4kg×5 bags per carton |
| Appearance | Dark gray powder |

## ADVANTAGES

- Fast setting speed, so it can stop running water and develop high strength quickly.
- Excellent waterproofing and anti-seepage performance, suitable for construction on both the positive and negative sides of surfaces.
- Fully hydraulic so it can be set above or below the water.
- Strong bonding capability, seamlessly integrating with the substrate to form a unified whole, resistant to aging and with excellent water resistance.

## PROPERTIES

| Description | Test Methods | Typical Values |
|---|---|---|
| Reaction to fire | EN 13501-1 | Fire rating, Classified A1 |
| Initial setting time (23 °C, water/powder=0.27)/min | BS EN 196-3 | ≈2.3 |
| Final setting time (23 °C, water/powder=0.27)/min | BS EN 196-3 | ≈3.1 |

*Issue Date: Feb. 2025*

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| Technical Data Sheet (TDS) | | |
|---|---|---|
| Compressive strength (1h)/ MPa | ASTM C 109 | ≥12 |
| Compressive strength (3 days)/ MPa | ASTM C 109 | ≥20 |
| Compressive strength (28 days)/ MPa | ASTM C 109 | ≥40 |
| Flexural strength (28 days)/ MPa | ASTM C348 | ≥5.5 |
| Tensile adhesion / MPa | ASTM C496 | ≥5 |

*Note: The above data were tested under standard conditions (temperature 23 °C ± 2 °C, relative humidity 50% ± 10%).*

## APPLICATION INSTRUCTIONS

### Application

(1) Strengthening Treatment of Waterproof Joints

Clean the surface of the substrate thoroughly to ensure it is free from mold release agents, floating slurry, loose gravel, dust, and other debris. Before use, fully moisten the substrate with water, but ensure there is no standing water.

Mix the material at a powder-to-water ratio of 1:(0.27-0.4). Avoid preparing too much product at once; it is recommended to use the mixture within 10 minutes. Apply the slurry evenly to the internal corners and pipe roots of walls and floors using a trowel, ensuring complete filling and compaction. Each application layer should be 1-2mm thick. If multiple layers are required, wait until the previous layer has hardened (no fingerprint left when pressed) and remoisten before applying the next layer.

(2) Leakage stoppage and repair

**For Leak Points:** Mix the material at a powder-to-water ratio of 1:0.27, shape it into a cone similar in diameter to the groove, and let it sit briefly until it feels firm to the touch. Then, press it into the groove and use a wooden stick to compact it, ensuring it is tightly squeezed inward and around the edges.

**For Leak Cracks:** Mix the material at a powder-to-water ratio of 1:0.27, shape it into a strip, and let it sit briefly until it feels firm to the touch. Press it into the groove and quickly compact the edges. For longer cracks, fill them in sections sequentially, with each section approximately 100mm-150mm long, leaving a 20mm gap between sections.

**For Large-Area Water Seepage:** When addressing widespread leakage, it is necessary to first divert water and relieve pressure, transforming surface leakage into linear or point leakage. Minimize the areas of seepage by concentrating the leakage into one or several points to reduce water pressure in other areas. Afterward, apply the waterproofing and leak-sealing methods used for point or linear leakage.

After completion, inspect the repair to ensure it is intact, with no missed spots or peeling. If any of these issues are found, perform additional repair work as needed.

### Tool Cleaning

All tools and application equipment shall be cleaned with water immediately after use. Hardened or cured material can only be removed mechanically.

## TRANSPORTATION AND STORAGE

The material is packed in plastic buckets and valve bags. During transportation, avoid exposure to sunlight, rain, and cold. Prevent extrusion and collision, and keep the packaging intact. Store in a cool, dry place at 5 °C–35 °C, avoiding exposure and freezing, as well as extrusion and collision. Under normal transportation and storage conditions, the shelf life is 12 months.

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**Technical Data Sheet (TDS)**

## PRECAUTIONS

- Do not apply to frozen or frost-covered surfaces.
- Do not apply to dynamic (moving) cracks.
- Do not use to fill expansion joints or control joints.
- Do not use it as a surface-applied coating or as a parging material.
- Do not fill voids greater than 30 in 3 (490 $cm^3$) in a single lift.
- Unopened product has a shelf life of 12 months. If it becomes damp and forms lumps, it should not be used.
- Excessive water addition or low temperatures may prolong the setting time.
- If the construction temperature is below 10°C, warm water can be used for mixing.
- Avoid preparing too much mixture at once. Once initial setting occurs, do not add water for reuse.
- Variations in construction temperature and humidity may cause slight fluctuations in the powder-to-water ratio.
- This product contains alkaline substances such as cement, which may cause skin irritation. Appropriate protective measures should be taken during use. Proper application is the responsibility of the user.
- If the product comes into contact with eyes, rinse immediately with clean water. If any discomfort occurs, seek medical attention promptly.

## HEALTH AND SAFETY

Users shall refer to the latest Material Safety Data Sheet (MSDS) containing physical, ecological, toxicological and other safety-related data for information and advice on safe handling, storage and disposal of chemicals.

## DISCLAIMER

*The above information and recommendations which are based on our experience are as for reference, they can't replace the customers' own experimental results. Since our company, our representatives or distributors can't control the transportation, storage, handling and use conditions of the products, the economic disputes and the quality accident caused by improper use can't be attributed to our suggest. In any application, the customer shall be responsible to comply with obligations of third-party intellectual property rights. Without our consent, anyone shall not provide technical information to third parties.*

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