

# MasterSeal<sup>®</sup> 505

Ultra-rapid setting mortar to plug active water leaks in concrete and masonry

## DESCRIPTION

**MasterSeal 505** is a blend of hydraulic cements, well-graded sands and additives supplied in dry powder form. It requires only the addition of clean water to produce a ready-to-use, ultra-rapid setting, plugging mortar.

Water flow can be stopped by mixing the **MasterSeal 505** to a malleable consistency and using as a plug.

## RECOMMENDED USES

**MasterSeal 505** is used:

- for stopping active water or seepage under pressure through joints, cracks and holes in concrete or masonry, where a normal mortar would be washed away and resin would not bond;
- as a seal for construction joints or floor joints prior to basement tanking with **MasterSeal**;
- for sealing cracks and construction joints in reservoirs and other water retaining structures;
- for instant sewer connections;
- for rapid anchoring of bolts, conduits, pipes, railings, sanitary equipment, etc.;
- for joint filling and pointing between concrete segments in concrete and brick tunnels, sewage systems, pipes and mines.

## FEATURES AND BENEFITS

- **Rapid setting** – Typically 30 - 60 seconds; fast return to service.
- **Easy to use** – Simply add water.
- **Chloride free** – No risk to steel reinforcement.
- **Non-toxic** – Suitable for use in potable water systems.
- **Premixed** – Giving consistent quality and results.

## PROPERTIES

Aspect	Free flowing grey powder
Water powder ratio, by weight	0.18
Fresh wet density	2150 Kg/m <sup>3</sup>
Final setting time	2-3 Minutes
Compressive Strength	8 MPa at 2 Hours 20 MPa at 24 Hours

## APPLICATION

### Surface preparation

Surface to be plugged must be clean and free from dust, oils, grease, laitance, curing compounds, residual mould oils or other contaminants that could impair adhesion.

Preferably, cracks or holes should be cut to a minimum width and depth of 20mm, cutting the sides as square as practicable. Undercut if possible. Avoid leaving a V-section. Do no feather-edge.

**For plugging active leaks:** Cut out the opening to a minimum diameter of 20 mm or till a sound base is obtained.

**For sealing the wall/floor joint in an existing construction:** cut out the joint/crack at least 20mm wide and deep, cutting back in to the wall slightly.

**For sealing the wall/floor joint in a new construction:** when designing, foresee an opening situated at the wall/floor joint (20mm x 20mm) to be filled with **MasterSeal 505**.

**To repair mortar joints and cracks in masonry wall, or cracks in concrete walls:** cut out the defective mortar joints or cracks to a minimum width and depth of 20mm. Undercut if possible.

**For holes, patches, honeycomb and other construction faults in concrete walls:** Remove all tie wires, wood or foreign objects by cutting back the concrete from the surface to a depth of 25 mm.

**For anchoring bolts or metal posts in concrete or masonry:** Drill a hole deep enough to secure the bolt or post properly and large enough so there is at least 10mm on all the sides of it. Alternatively



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consider **Concresive 1418** for anchoring.

Flush out holes, joints or cracks with water to remove all loose particles and dust. All surfaces must be dampened with clear water immediately prior to the application of **MasterSeal 505**.

## Mixing instructions

**MasterSeal 505** can be mixed with either a clean rod or gloved hand to the desired consistency.

Mix only the quantity which can be used immediately. Do not re-temper.

Mix **MasterSeal 505** powder with water in the ratio 3.5: 1 by volume.

## Application

**For plugging active leaks:** Form a plug of the material in the gloved hand until slight setting occurs. Then press the plug firmly into the opening; exert full pressure, without moving the hand. Hold in place for approximately 60 seconds. If the opening is too big to be closed with 1 mix of **MasterSeal 505**, work progressively from the sides to the middle, following *the above procedure*. *After set, but not completely hardened*, trim off excess material in order to create a uniform level with the surrounding surfaces by removing from centre to sides.

**For sealing the wall/floor joint in an existing construction:** Fill the opening with **MasterSeal 505** mortar, force in to place forming a cove.

**For sealing the wall/floor joint in a new construction:** Fill the rebate with **MasterSeal 505** mortar, force in to place forming a cove.

**To repair mortar joints and cracks in masonry**

**wall, or cracks in concrete walls:** Trowel or press into the joint.

**For holes, patches, honeycomb and other construction faults in concrete walls:** Fill all holes, patches honeycombing and other construction faults.

**For anchoring bolts or metal posts in concrete or masonry:** Fill the hole with a putty-like consistent mortar and tamp it down so that the entire hole is full. Immediately centre the bolt or post over the hole and force it into the

**MasterSeal 505** mortar. Tamp the mortar firmly around the bolt or post.

## CURING

Once the placed **MasterSeal 505** mortar has stiffened sufficiently, dampen with clean water and maintain in a damp condition for a minimum of 15 minutes.

## CLEANING

Clean tools and equipment IMMEDIATELY after use with water. Hardened **MasterSeal 505** can only be removed mechanically.

### STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this BASF Construction Chemicals publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

### NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by BASF either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not BASF Construction Chemicals, are responsible for carrying out procedures appropriate to a specific application.

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## PACKAGING

MasterSeal 505 is packaged in 5kg kits

## SHELF LIFE

Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical

climates the product must be stored in an air-conditioned environment. Shelf life is 6 months when stored as above.

## PRECAUTIONS

Do not reuse containers for storage of consumable item. For further information refer to the **Material Safety Data Sheet. (MSDS)** available on demand or on the BASF web site.