

MasterSeal® 590

Ultra-rapid setting mortar to plug active water leaks

DESCRIPTION

MasterSeal 590, when mixed with clean water, provides a ready to use ultra-rapid setting durable plugging mortar for active water leaks in concrete and masonry. The material expands as it cures to form a watertight seal with similar characteristics to concrete.

RECOMMENDED USES

MasterSeal 590 is used to stop 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 mortars would not bond.

Areas of use include:

- As a seal for construction joints or floor joints prior to basement tanking with.
- Instant sewer connections
- Sealing cracks and construction joints in reservoirs and other water retaining structures
- Rapid anchoring of bolts, conduits, pipes, railings, sanitary equipment, etc.
- Joint filling, pointing between concrete segments in concrete and brick tunnels, sewage systems, pipes and mines.

FEATURES AND BENEFITS

- Ultra-rapid set, instant plugging of leaks
- Requires the addition of water only
- Expands as it sets, ensuring a permanent watertight seal
- Similar characteristics and compatible with concrete
- Chloride-free
- Does not promote corrosion of the reinforcement

APPLICATION

Preparation of Substrate

Cracks or holes should be cut to a minimum width and depth of 20 mm, cutting the sides as square as practicable. Undercut if possible. Avoid leaving a V section. Do not feather-edge.

Flush out holes, joints or cracks with water to remove all loose particles and dust.

All surfaces must be dampened with clean water immediately prior to the application of **MasterSeal 590**.

Mixing & Application

Mixing should only be done by hand.

For plugging active leaks:

Mix, in a suitable container, only sufficient material (0.5kg) that can be placed by hand in one application.

Mix quickly and well to a stiff consistency (approximately 1 part of water to 4 parts of **MasterSeal 590** by volume). Do not overmix. Hold the material in a gloved hand until slight warmth is felt or setting occurs.

Then press **MasterSeal 590** mortar firmly into the opening; exert full pressure, without moving the hand or trowel.

Do not remove the hand too quickly.

If the opening is too big to be closed with 0.5kg of **MasterSeal 590**, work from the sides to the middle, following the above procedure.

After stopping the active water, trim off the patch so that it is uniformly level with the surrounding wall surfaces.

For sealing cracks at the junction of floor and wall in an existing construction:

Cut out the crack at least 20mm wide and deep, cutting back into the wall slightly.

Flush away all cuttings and dirt.

Force **MasterSeal 590** mortar into the prepared crack and smooth it out.

Form a 45° cove or fillet at the junction of floor and wall of approximately 35-45 mm.

For sealing the junction between a concrete floor and a masonry wall in new construction:

Form a rebate throughout the basement and sub-basement rooms and pits by inserting a strip of wood 20mm x 20mm at the junction of vertical masonry walls and the concrete floor slabs.

The top edge of the strip should be laid true and level with finished concrete floors and left in place until fresh concrete has cured.

Remove the wood strip previously inserted.

Wash the groove with clean water from a hose pipe to remove debris.

MasterSeal[®] 590

Fill the groove with **MasterSeal 590** mortar mixed to a stiff consistency; force or tamp it into place with a round-nosed tool to form a cove between the floor and wall.

Keep the **MasterSeal 590** mortar damp for 15 minutes if no active water is present.

To repair leaking mortar joints and cracks in masonry walls, or cracks in concrete walls:

Cut out the defective mortar joints or cracks to a minimum width and depth of 20mm.

Undercut if possible.

Force **MasterSeal 590** into the crack and keep it damp for at least 15 minutes.

For holes, blisters, patches, honeycomb and other construction faults in concrete walls:

Mix **MasterSeal 590** with water to the consistency of stiff mortar and fill all holes, blisters, patches, honeycombing and other construction faults flush with the surrounding surfaces.

Scratch the finish for later applications.

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 sides of it.

Fill the hole with **MasterSeal 590** 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 590** mortar.

Tamp the **MasterSeal 590** mortar firmly around the bolt or post and keep moist for 15 minutes.

CURING

Final setting time, 2 - 4 minutes.

Once the placed **MasterSeal 590** mortar has stiffened sufficiently, dampen with clean water and maintain in a damp condition for a minimum of 15 minutes.

ESTIMATING DATA

1kg of powder will fill approximately 585cm³ or a joint 20mm x 20mm x 1.45m.

PACKAGING

MasterSeal 590 is available in 20kg packs.

SHELF LIFE

MasterSeal 540 can be kept for 12 months in original unopened packing when stored indoors. Do not store in direct sunlight and avoid allowing the material to freeze which will render the material unusable.

PRECAUTIONS

For detailed Environmental, Health and Safety information, please consult the Safety Data Sheet (SDS). Available from your local BASF office or website for the latest version.

TECHNICAL DATA

Property	Unit	Data
Wet density	kg/m ³	2140
Maximum particle size	mm	0.8
Flexural strength	N/mm ²	2.7 6.1 6.3 7.0
30 minutes		
24 hours		
7 days		
28 days		
Compressive strength	N/mm ²	13.8 31.0 44.3 52.8
30 minutes		
24 hours		
7 days		
28 days		
Tensile strength	N/mm ²	3.3
28 days		



We create chemistry

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