

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.

FIELD OF APPLICATION

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.
- For instant sewer connections
- For sealing cracks and construction joints in reservoirs and other water retaining structures
- For 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 PROCEDURE

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 and 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.

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.

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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.

PACKAGING

MasterSeal 590 is available in 5kg cans and 25kg pails.

COVERAGE

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

STORAGE

All materials should be stored under cover, clear of the ground and stacked not more than 4 pails high. Protect the materials from all sources of moisture and frost.

SHELF LIFE

Rotate stock in order not to exceed the shelf life of 12 months. Once opened the material should be used as soon as possible.

HANDLING AND TRANSPORT

Usual preventive measures for the handling of chemical products should be observed when using this product, for example do not eat, smoke or drink while working and wash hands when taking a break or when the job is completed.

Specific safety information referring the handling and transport of this product can be found in the Material Safety Data Sheet. For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

Disposal of product and its container should be carried out according to the local legislation in force. Responsibility for this lies with the final owner of the product.

CONTACT DETAILS

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Product Data			
Property		Unit	Data
Wet Density		kg/m ³	2140
Maximum particle size		mm	0.8
Flexural Strength	30 Minutes	N/mm ²	2.7
	24 Hours		6.1
	7 Days		6.3
	28 Days		7.0
Compressive Strength	30 Minutes	N/mm ²	13.8
	24 Hours		31.0
	7 Days		44.3
	28 Days		52.8
Tensile Strength	28 Days	N/mm ²	3.3

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Health and Safety

*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

Solvent Based Products

Use in well ventilated areas; avoid inhaling. Suitable respiratory equipment may be needed, eg when spraying. Can cause skin, eye irritation. Wear protective eye shields and gloves during use. Do not smoke or allow sparks or naked lights when stored or in use.

Resin Products

Can cause irritation, dermatitis or allergic reaction. Use protective equipment particularly for skin and eyes. Use only in well ventilated areas.

Spillage

Chemical products can cause damage; clean spillage immediately.

DISCLAIMER

"Master Builders Solutions UK Ltd" (the Company) endeavours to ensure that advice and information given in Product Data Sheets, Method Statements and Material Safety Data Sheets (all known as Product Literature) is accurate and correct. However, the Company has no control over the selection of its products for particular applications. It is important that any prospective customer, user or specifier, satisfies him/her-self that the product is suitable for the specific application. In this process, due regard should be taken of the nature and composition of the background/base and the ambient conditions both at the time of laying/applying/installing the material and when the completed work is to be brought into use.

Accordingly, no liability will be accepted by the Company for the selection, by others, of a product, which is inappropriate to a particular application.

Products are sold subject to the Company's standard conditions of sale and all customers, users and specifiers, should ensure that they examine the Company's latest Product Literature.