

MasterSeal 590

Fast-setting mortar to plug active water leaks.

DESCRIPTION

MasterSeal 590 is a ready-to-use fast-setting mortar that instantly stops running water or active moisture seepage.

FIELDS OF APPLICATION

- Stop seepage under pressure through:
 - cracks, , construction joints in reservoirs, parkings, water retaining structures, instant sewer connections, tunnels, galleries.
- Sealing walls
- Rapid repairing.
- Fast-setting grouting.

BENEFITS

- Easy to apply, only to be mixed with water (1 component)
- Excellent adhesion.
- Ultra rapid strengths build-up.

APPLICATION

1. SUBSTRATE PREPARATION

Preferably, 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.

For anchoring bolts drill a hole deep enough to secure the bolt or post properly and large enough so there is at least 10 mm on all sides of it.

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

Alternatively consider another MasterEmaco/MasterFlow product for anchoring horizontal surfaces.

Consult BASF-CC for further information.

2. MIXING

Mixing liquid potable water

±0,24 (0,22-0,26 l) litres clean water for 1 kg of powder.

MasterSeal 590 powder should be mixed with clean water by hand only. Mix quickly and well to a stiff consistency using ± 0,24 litres water for 1 kg of powder. Do not overmix.

Do not mix more than can be placed within one application, 1 – 2 minutes (at 20°C).

3. APPLICATION

For plugging active leaks.

Form a plug of the mixed material in the gloved hand until slight setting occurs. Then press MasterSeal 590 mortar 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 590, work progressively from the sides to the middle, following the above procedure.

After setting, but not completely hardened, trim off excess material in order to create a uniform level with the surrounding surfaces. Remove from centre to sides.


PREVENTIVE LEAKING

Fill the opening or crack completely. Force into place forming a cove, especially when it is a product of the MasterSeal range.

Consult BASF-CC for further information.

ANCHORING

Fill the hole with MasterSeal 590 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.

	
BASF Coatings GmbH Glasuritstraße 1 D-48165 Münster	
15 DE0256/01	
MasterSeal 590 (DE0256/01) EN 998-1:2010	
General purpose rendering mortar EN 998-1 GP CS IV	
Reaction to fire	Class A1
Water absorption	W0
Water vapour permeability μ	≤ 25
Adhesion	$\geq 2,0$ N/mm ² FP:A/B
Thermal conductivity λ_{10} , dry (Table value to EN 1745:2012)	$\leq 1,11$ W/(m.K) for P= 50% $\leq 1,21$ W/(m.K) for P= 90%

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4. CURING

Because of too rapid hydration MasterSeal 590 develops high temperatures. In order to distract these high temperatures, 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.

5. CLEAN UP AND SPILLAGES

Not hardened material may simply be removed with water.

COLOR

Standard: grey.

CONSUMPTION

± 1.7 kg powder per dm³.

PACKAGING, STORAGE AND SHELF LIFE

MasterSeal 590 is packaged in 5 kg cans and 25 kg pails. MasterSeal 590 is to be stored under cover and clear of the ground. Stacking max. 2 pails high. Protect the materials from all sources of moisture and frost and rotate stock. Shelf life under these conditions is 12 months in unopened original bags.

SAFETY PRECAUTIONS

MasterSeal 590 is based on cement and thus can be irritating to the skin and eyes. Gloves and eye protection should be worn. The use of dust masks is recommended. Accidental splashes of the material to the skin or eyes should be immediately washed off with clean water. In the event of prolonged irritation seek medical advice. In the case of ingestion give water or milk to drink and treat symptomatically. Medical advice should be sought. A Material Data Sheet for this product is available on request.

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TECHNICAL PROPERTIES(*)

Technical properties			
Water demand (per kg powder)			0,22 – 0,26 l
Wet density	EN 1015-10		approx. 2,1 g/cm ³
Working time (after mixing)			1 – 2 minutes
Maximum particle size			0,8 mm
Flexural strength	EN 1015-11	30 minutes 24 hours 28 days	> 2,5 N/mm ² > 4,5 N/mm ² > 7,0 N/mm ²
Compressive strength	EN 1015-11	30 minutes 24 hours 28 days	> 12 N/mm ² > 20 N/mm ² > 50 N/mm ²
Bond strength	EN 1015-12	24 hours	2,1 N/mm ²
Thermal conductivity	EN 1745	for P = 50% for P = 90%	λ 10, dry \leq 1,11 W/(m.K) λ 10, dry \leq 1,21 W/(m.K)
Reaction to fire	EN 13501-1		class A1
Dangerous substances			conformity to EN 998-1

(*) Hardening times are measured at 21°C \pm 2°C and 60% \pm 10% relative humidity. Water content: 0,24 l/kg product. Higher temperatures and/or higher R.H. can shorten these times, and vice versa. Technical data shown are statistical results and do not correspond to guaranteed minima. Tolerances are those described in appropriate performance.

BASF Belgium Coordination Center Comm. V. – Business Belux – Construction Chemicals

Industrieterrein 'Ravenshout' 3711
Nijverheidsweg 89, B-3945 Ham
Tel. +32 11 34 04 34. Fax +32 11 40 13 92
basf-cc-be@basf.com
www.master-builders-solutions.basf.be
B.T.W./T.V.A. BE 0862.390.376
RPR/RPM Antwerpen

Contact for the Netherlands:

Tel. +31 162 42 51 90. Fax +31 162 42 74 52
basf-cc-be@basf.com
www.master-builders-solutions.basf.nl

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