

MegaPlug

Formerly: WATERPLUG

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

DESCRIPTION

MegaPlug, 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

MegaPlug, 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 METHOD

(a) Surface Preparation

For plugging active leaks and sealing wall/floor joints:

Preferably, cracks or holes should be cut to a minimum width and depth of 20 mm x 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.

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 10 mm on all sides of it.

All surfaces must be dampened with clean water immediately prior to the application of MegaPlug,

(b) Mixing

MegaPlug, powder should be mixed with clean water by hand only. Mix quickly and well to a stiff consistency using approximately 0.24 litres water for 1 kg of powder (0.22 – 0.26 l/kg).

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

Do not re-temper.

(c) Application

For plugging active leaks:

Hold the material in a gloved hand until slight warmth is felt or slight setting occurs.

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

Hold in place for at least 1 minute.

If the opening is too big to be closed with one mix of **MegaPlug**, work progressively 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:

Force **MegaPlug**, mortar into the prepared opening and smooth it out.

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

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Reliable
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Solutions

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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 MegaPlug, 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 MegaPlug, 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:

Press by hand or by trowel MegaPlug, into the crack.

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

Fill all holes, blisters, patches, honeycombing and other construction faults with the mixed MegaPlug, Scratch the finish for later applications.

For anchoring bolts or metal posts in concrete or masonry:

Fill the hole with MegaPlug, 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 MegaPlug, mortar.

Tamp the MegaPlug, mortar firmly around the bolt or post.

CURING

Final setting time: 2 - 4 minutes.

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

PACKAGING

MegaPlug, 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 (25kg) resp. 5 (5kg) pails high. Protect the materials from all sources of moisture and long-term temperatures over 30° C.

SHELF LIFE

Rotate stock in order not to exceed the shelf life of 12 months.

WATCH POINTS

- 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 remix (re-temper) hardened material.
- Do not use as surface applied coating.
- Do not expose cured patches to soft water with a total calcium hardness below 140 ppm, or with a pH below 7 or above 12, or water soluble sulphates (SO₄), greater than 0.20% without an additional protective topcoat.
- Do not use if hard lumps have developed in the powder.

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.

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.

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Product Data		
Property	Unit	Data
Wet Density	g/cm ³	2.14
Maximum particle size	mm	0.8
Flexural Strength	N/mm ²	30 Minutes > 2.5
		24 Hours > 4.5
		28 Days > 7.0
Compressive Strength	N/mm ²	30 Minutes > 12
		24 Hours > 20
		28 Days > 50

Note: Hardening times are measured at 21°C ± 2°C and 60% ± 10% relative humidity. Water content: 0,24l/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

Disclaimer:

In view of widely varying site conditions and fields of application of our products, this technical data sheet is meant to provide general application guidelines only. This information is based on our present knowledge and experience. The customer is not released from the obligation to conduct careful testing of suitability and possible application for the intended use. The customer is obliged to contact the technical help-line for fields of application not expressly stated in the technical data sheet under "Fields of Application". Use of the product beyond the fields of application as stated in the technical data sheet without previous consultation with the supplier and possible resulting damages are in the sole responsibility of the customer.

All descriptions, drawings, photographs, data, ratios, weights i.e. stated herein can be changed without advance notice and do not represent the condition of the product as stipulated by contract. It is the sole responsibility of the recipient of our products to observe possible proprietary rights as well as existing laws and provisions. The reference of trade names of other companies is no recommendation and does not exclude the use of products of similar type. Our information only describes the quality of our products and services and is no warranty. Liability is accepted for incomplete or incorrect particulars in our data sheets only in the event of intent or gross negligence, without prejudice to claims under product liability laws.

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