

# FEB WATERPLUG

## Rapid Setting Water Stop Repair Compound

### Description of Product

FEB WATERPLUG, 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.

### Typical Uses

FEB WATERPLUG 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 FEBTANK SUPER.
- 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.

### Instructions for Use

#### Preparation of Substrate

Preferably, cracks or holes should be cut out to a minimum width and depth of 20mm, cutting the sides as square as practicable. Undercut if possible. Avoid leaving a V-section. Do not feather-edge. Flush out the hole or crack with water at high pressure in order to remove all loose particles and dust. All surfaces must be dampened with clean water immediately prior to application of FEB WATERPLUG.

#### Mixing

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 FEB WATERPLUG by volume). Do not overmix. Hold the material in a gloved hand until slight warmth is felt or setting occurs. Then press FEB WATERPLUG 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 FEB WATERPLUG, 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 FEB WATERPLUG 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 subbasement 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 FEB WATERPLUG 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 FEB WATERPLUG mortar damp for 15minutes 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 FEB WATERPLUG into the crack and keep it damp for at least 15 minutes.

**For holes, blisters, patches, honeycomb and other construction faults in concrete walls:** Remove all tie wires, wood or steel separators by cutting back the concrete from the surface to a depth of 25mm. Mix FEB WATERPLUG 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 FEB WATERPLUG 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 FEB WATERPLUG mortar. Tamp the FEB WATERPLUG mortar firmly around the bolt or post and keep moist for 15 minutes.

**Curing**

Final setting time, 2 – 4 minutes. Once the placed FEB WATERPLUG mortar has stiffened sufficiently, dampen with clean water and maintain in a damp condition for a minimum of 15 minutes.

**Coverage**

1kg of powder will fill approximately 585cm<sup>3</sup> 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**

9 months when stored as directed.

**Technical Data/Typical Properties**

<b>Wet density</b>	2.14g/cm <sup>3</sup>
<b>Chloride content</b>	<0.1% w/w (nil)
<b>Estimation (grouting)</b>	Litres of material required (mixed) = $\frac{\text{width (mm)} \times \text{depth (mm)} \times \text{length (m)}}{1000}$
<b>Shrinkage</b>	Minimal (shrinkage compensated grade)
<b>Compressive strength (N/mm<sup>2</sup>)</b>	30 mins: 13.8; 24hrs: 31; 7 days: 44; 28 days: 53
<b>Flexural strength (N/mm<sup>2</sup>)</b>	30 mins: 2.7; 24hrs: 6.1; 7 days: 6.3; 28 days:7.0
<b>Tensile strength (N/mm<sup>2</sup>)</b>	28 days: 3.3
<b>Max particle size</b>	0.8mm