

CHEMFIT QUICKPLUG 1100

Cement Based Rapid Setting Plug Mortar – To Stop and Seal Water Leakages

PRODUCT DESCRIPTION

ChemFit QuickPlug 1100 is a cement-based, rapid setting plug mortar specifically formulated to stop and seal active water leakages through cracks, holes, pipe penetrations, and construction joints in concrete and masonry structures. The fast-setting hydraulic formulation allows direct application into flowing or pressurized water, where it sets within 1-3 minutes to form a permanent, non-shrink, waterproof seal. Ideal for emergency repairs in basements, tunnels, manholes, tanks, reservoirs, and below-grade structures.

PRIMARY APPLICATIONS

ChemFit QuickPlug 1100 is recommended for use in conditions such as:

- Stopping active water leaks through cracks, holes, and joints
- Sealing around pipe penetrations, conduit entries, and cable ducts
- Emergency repair of leaking basements, retaining walls, and manholes
- Plugging leaks in concrete tanks, reservoirs, swimming pools, and fountains
- Temporary or permanent sealing of water ingress before further waterproofing
- Repair of honeycombed concrete with water flow

KEY FEATURES AND BENEFITS

- **Rapid setting** – Sets in 1-3 minutes, even under flowing or pressurized water
- **Active leak stopping** – Applied directly into water flow; hydraulic reaction seals immediately
- **High adhesion** – Bonds strongly to damp and wet concrete, masonry, brick, and stone
- **Non-shrink** – Expands slightly during set to form a tight, permanent seal
- **Easy to use** – Just add water to stiff consistency; hand-apply or trowel
- **Chloride free** – Safe for use with reinforcing steel; no corrosion risk
- **Ready in minutes** – Can be overcoated or drilled after 15-30 minutes
- **Available in 5 kg pail** – Convenient size for emergency repairs

PHYSICAL AND CHEMICAL PROPERTIES

Property	Specification
Appearance	Fine, free-flowing powder
Color	Gray
Form	Powder (one component)
Basis	Rapid setting hydraulic cement with proprietary additives
Mixing water	Add clean water to achieve stiff, putty-like consistency
Initial set (at 25°C)	1 – 3 minutes
Final set	3 – 5 minutes
Working time (after mixing)	30 – 60 seconds
Application temperature	+5°C to +35°C
Service temperature	-20°C to +80°C

COMPRESSIVE STRENGTH

Age	Compressive Strength
30 minutes	5 – 10 MPa (725 – 1,450 psi)
1 hour	10 – 15 MPa (1,450 – 2,180 psi)
24 hours	20 – 30 MPa (2,900 – 4,350 psi)
28 days	30 – 40 MPa (4,350 – 5,800 psi)

PACKAGING AND STORAGE

Packaging:

- 5 kg pail (resealable, moisture-proof)

Storage:

- Store in original sealed pail in a cool, dry location at +5°C to +35°C
- Protect from moisture, humidity, and direct sunlight
- Keep pail tightly closed when not in use

Shelf life: 12 months from date of manufacture when stored properly

DOSAGE AND COVERAGE RATES

- **Yield per 5 kg pail (mixed):** Approx 2.5 – 3.0 liters (stiff putty)
- **Coverage:** Varies with hole/leak size
 - Small crack (10 mm wide x 10 mm deep): Approx 5 – 10 m per kg
 - Medium hole (25 mm diameter x 25 mm deep): Approx 8 – 10 holes per kg
 - Large hole (50 mm diameter x 50 mm deep): Approx 3 – 5 holes per kg

NOTE: Mix only small batches that can be applied within 30-60 seconds. Work quickly.

APPLICATION GUIDELINES

Surface Prep:

- Enlarge crack or hole to sound substrate (minimum 20 mm depth, dovetail or undercut shape)
- Remove loose concrete, debris, and sharp edges
- Do not attempt to stop water flow – product works under water

Mixing:

- Add powder to clean container; gradually add clean water while mixing by hand (gloved)
- Mix to a stiff, putty-like consistency (similar to clay); do not add excess water
- Mix only amount that can be applied within 30-60 seconds

Application:

- Form mixed mortar into a cone or ball
- Press firmly into the leak opening, starting from the center outward
- Hold firmly for 30-60 seconds until set; plug will become warm and hard
- For large leaks (high pressure/flow), apply in layers – allow each layer to set before next
- After plug sets (2-3 minutes), shape or trim excess with trowel

Curing:

- No special curing required – sets and cures under water
- Can be overcoated with repair mortar or waterproofing membrane after 15-30 minutes
- Protect from freezing for 24 hours after application

HEALTH AND SAFETY

ChemFit QuickPlug 1100 is alkaline and may cause severe eye and skin irritation. In fresh, wet state, the product is caustic. If eye contact occurs, rinse immediately with plenty of water for 15-20 minutes and seek medical attention immediately. For skin contact, wash immediately with soap and water; remove contaminated clothing. If swallowed, do not induce vomiting; rinse mouth and drink water, then seek medical attention immediately. Use gloves (nitrile or rubber), safety glasses, and protective clothing during handling. Avoid inhalation of dust – use dust mask if ventilation is poor. Refer to the Safety Data Sheet for detailed information.

CLEANG OF TOOLS

Clean all mixing equipment, trowels, and spillages with water immediately after use. Dried or cured material requires mechanical removal.

APPROVALS AND STANDARDS

ChemFit QuickPlug 1100 conforms to the following standards:

- Cement based rapid setting plug mortar for stopping active water leakages
- **ASTM C1582** – Chloride free (safe for reinforced concrete)
- Suitable for use in potable water structures after full cure (24 hours)
- Meets requirements for hydraulic cement based plugging compounds
- Non-toxic after full cure

LEGAL NOTES

All technical data provided in this Product Data Sheet is based on laboratory testing under controlled conditions. Actual field performance may vary due to differences in substrates, application methods, site conditions, and environmental factors. ChemFit makes no warranty of merchantability or fitness for a particular purpose. Users shall conduct their own trials to validate product suitability for the intended application. ChemFit reserves the right to modify product specifications without prior notice. For the most current documentation, request the latest Product Data Sheet and Safety Data Sheet from ChemFit.

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