

CHEMFIT RAPIDSET 4A

Quick Setting Additive– To Preliminary Seal Wet Surfaces Prior to Final Waterproofing System Application

PRODUCT DESCRIPTION

ChemFit RapidSet 4A is a high-performance, quick setting additive designed to be blended with cement or cementitious materials to produce a rapid setting mortar or slurry for preliminary sealing of wet surfaces. The additive triggers an extremely fast hydration reaction, allowing the mixed material to set within 15-45 seconds, even on actively seeping or leaking substrates. This makes it ideal for stopping water flow and sealing damp or wet surfaces before the application of a final waterproofing system. The formulation is chloride-free, safe for use with reinforcing steel.

PRIMARY APPLICATIONS

ChemFit RapidSet 4A is recommended for use in conditions such as:

- Preliminary sealing of wet or actively leaking concrete and masonry surfaces
- Stopping water seepage through cracks, joints, and porous substrates
- Creating a dry, stable base for final waterproofing membranes, coatings, or renders
- Sealing around pipe penetrations, conduits, and formwork tie holes in damp conditions
- Emergency repair of water ingress prior to scheduled waterproofing works

KEY FEATURES AND BENEFITS

- **Ultra-fast setting** – 15-45 seconds (adjustable by dosage)
- **Preliminary sealing** – Prepares wet surfaces for final waterproofing systems
- **Stops active water flow** – Can be applied to seeping or leaking substrates
- **Easy to use** – Dry powder additive; blend with cement on site
- **Chloride free** – Safe for reinforced concrete; no corrosion risk
- **High adhesion** – Bonds to damp concrete, brick, stone, and mortar
- **Available in 5 kg and 20 kg containers** – Suitable for small repairs or larger preparatory works

PHYSICAL AND CHEMICAL PROPERTIES

Property	Specification
Appearance	Fine, free-flowing powder
Color	Gray / Off-white
Form	Dry powder additive
Basis	Proprietary rapid setting cementitious blend
Chloride content	Nil
Mixing	Blend with Portland cement (1:1 to 1:3 by volume, adjust as needed)
Water addition	Add clean water to stiff, putty-like consistency
Setting time (at 25°C)	15 – 45 seconds (depending on dosage and temperature)
Application temperature	+5°C to +35°C
Final seal strength	Achieved within minutes

PACKAGING AND STORAGE

Packaging:

- 5 kg container (resealable)
- 20 kg container (resealable)

Storage:

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

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

DOSAGE AND COVERAGE RATES

- **Typical mix ratio (by volume):** 1 part ChemFit RapidSet 4A : 1 to 3 parts Portland cement
- **Water addition:** Mix to stiff putty consistency (approx. 0.3-0.4 L water per kg of dry blend)
- **Coverage:** Varies with thickness and substrate porosity; approximate 1 kg of dry blend yields 0.5-0.7 L of mortar

NOTE: Mix only small batches that can be applied within 15-30 seconds. Work quickly. Adjust cement ratio to control setting speed – more additive = faster set.

APPLICATION GUIDELINES

Surface Preparation:

- Remove loose debris, sharp edges, and standing water (surface may remain damp or seeping)
- For best results, slightly undercut or roughen the area to create a mechanical key

Mixing:

- Blend ChemFit RapidSet 4A with Portland cement at the desired ratio (typically 1:1 to 1:3)
- Add clean water gradually while mixing by hand (gloved) until a stiff, putty-like consistency is achieved
- Mix only small batches that can be applied within 15-30 seconds

Application:

- Press the mixed mortar firmly into the wet crack, hole, or surface area
- Hold in place for 15-30 seconds until the material sets hard
- For larger areas or flowing water, apply in sections, allowing each to set before adjacent application
- After sealing, allow the preliminary plug to harden for 5-10 minutes before applying the final waterproofing system

Curing:

- No special curing required; material sets and cures rapidly even under damp conditions
- For best results, keep dry for 1-2 hours before applying final waterproofing layer

HEALTH AND SAFETY

ChemFit RapidSet 4A 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 (rubber or nitrile), 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.

CLEAING OF TOOLS

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

APPROVALS AND STANDARDS

ChemFit RapidSet 4A conforms to the following standards:

- **ASTM C928 / C928M** – Packaged, dry, rapid-hardening cementitious materials for concrete repair
- **ASTM C1600 / C1600M** – Rapid hardening hydraulic cement
- **ASTM C109 / C109M** – Compressive strength test method
- **ASTM C191** – Time of setting by Vicat needle (to confirm 15-45 sec set)
- **EN 1504-2** – Surface protection systems for concrete (CE marking)
- **EN 934-2:T6** – Concrete admixtures – Set accelerating admixtures
- **NSF/ANSI 61** – Drinking water system components (potable water contact)
- **ISO 9001** – Quality management system certified

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.

CHEMFIT CONSTRUCTION CHEMICAL AND SERVICES LIMITED

Office No. 8, 1KM Near Gaey Soap, Sargodha Road, Faisalabad

Tel: +923364544837

Web: www.chemfitchemicals.com

Email: chemfit.pro@gmail.com