



**Chem Coats (Pvt) Ltd.**

# ChemFlex

**Premier, two components flexible waterproofing coating**

## DESCRIPTION

ChemFlex is a ready to use flexible coating based on special synthetic resin dispersion and a blend of selected cements mixed with carefully graded aggregate

## USES

ChemFlex is used for:

- Waterproofing of tanks, roof, retaining wall and water reservoirs.
- Protection and repair of balconies, terraces and hunching concrete of roads and bridges.
- Waterproofing of new and old buildings (internal and external)

## BENEFITS

- Excellent waterproof barrier.
- Effective on negative or positive side.
- Brush, trowel, or spray applied.
- Self-curing.
- High bond strength.
- Excellent resistance to chloride ion penetration.
- Good abrasion resistance.
- Approved for use in potable water systems.
- Non-toxic.
- Excellent freeze/thaw resistance.
- Reliable application.

## BONDING / PRIMING

No priming required.

## SURFACE PREPARATION

All surfaces that are to receive the coating must be free from oil, grease, wax, dirt or any other form of foreign matter that might affect adhesion. Typically concrete may require grit blasting. Spalled surfaces or those containing large blowholes and other such should be repaired using ChemFlex or a Chem Coats approved repair mortar. Care must be taken when choosing the repair mortar to ensure that it has all necessary approvals for contact with potable water. If the surface contains small blow holes, typically less than 1mm wide, the coating can be applied directly onto the substrate without the need for a treatment. Cracks which are less than 0.3mm in width can be over coated as long as the crack is not likely to open up. Cracks that are greater than 0.3mm in width should be chased-out to 4mm in width and approximately 15mm in depth. This should be filled with ChemFlex (applied using less liquid providing a thicker consistency). When the material in the crack has hardened the coating should be applied over the crack

## MIXING

It is essential to use a mechanical mixer, such as a slow speed electric drill fitted with a suitable paddle. Fill approximately three quarters of component A (milky liquid) into a pail and, with continuous stirring, slowly add component B (grayish powder). Mixing must be continued until the mix is homogeneous and free of lumps.



## PHYSICAL PROPERTIES

Nominal coverage	1.75kg/m <sup>2</sup> /1mm thick (2 coats required)
Pot life	@ 20°C - 1 hour @ 30°C - 0.5 hour
Hardening time	Recoatable 16 hours Resistant to mechanical stress : 3 days Full cure : 7 days
Resistance to waterpressure	Attained after 7 days cure Positive pressure: 18 atmospheres Negative pressure: 3-4 atmospheres

For horizontal surfaces such as the base of reservoirs, add the remaining component A. For other applications add only sufficient component A to provide a suitable consistency. When the two components are mixed together, a plastic thixotropic liquid results which is easy to apply. The very finely dispersed resin component imparts excellent adhesion to concrete, plaster, and natural stone surfaces. Once cured, ChemFlex is waterproof & resistant to weathering. It exhibits a high degree of impermeability to water vapour and carbon dioxide. The cured coating is highly flexible and may be used to overbridge hairline cracks up to 0.2mm in width. ChemFlex is nontoxic and contains no chlorides.

## COVERAGE

Nominal coverage rate: 1.75kg/m<sup>2</sup>/1mm wet film thickness. The coverage figure given is theoretical due to wastage factors and the variety and nature of possible substrates, practical coverage figures will be reduced. A minimum two coats are recommended.



## APPLICATION

ChemFlex may be applied to the correctly prepared surface by short bristled block brush, rubber squeegee, trowel or spray.

**Brush:** using a block brush, ChemFlex should be applied in three coats to provide a final dry film thickness of between 2- 3mm on surfaces. Alternate coats should be applied at right angles to each other, allowing 16 hours between coats.

**Trowel:** horizontal surfaces – the first layer of ChemFlex should be applied to a thickness of 1 – 1.5mm using a normal trowel. Allow to cure for approximately 16 hours and then apply a second layer using a notched trowel. This is immediately leveled with a spiked roller. On vertical surfaces, the first layer should be applied with a notched trowel and the second on with a flat trowel. ChemFlex should not be applied thicker than 1.5mm per coat.

**Spray:** contact our Technical Department for details of the special equipment required. **GLOVES SHOULD BE WORN WHEN MIXING AND USING ChemFlex.**

## CLEANING

Tools, brushes and mixing equipment should be cleaned immediately after use and before material has set with ChemCoat Brush Cleaner followed by washing with soap and water.

## TEMPERATURE AND RELATIVE HUMIDITY

Application temperature: 05°C – 40°C Do not apply if rain is imminent.

## PACKAGING

ChemFlex is supplied in normally 20kg kits.

## HANDLING & STORAGE

This product has a shelf life of 12 months if kept in a dry cool place in the original packaging. In more extreme conditions this period might be shortened

## HEALTH & SAFETY

ChemFlex powder is irritating to eyes, respiratory system and skin. Avoid inhalation of dust and wear suitable respiratory protective equipment. ChemFlex liquid is not classified as dangerous. ChemFlex when mixed becomes highly alkaline. Wear suitable protective clothing, gloves and eye protection. For both components and mixed material avoid contact with skin and eyes. In case of contact with eyes or skin rinse immediately with plenty of water and seek medical advice.

## IMPORTANT NOTE

The information given in this data sheet is based on current development work and many years of field experience. Whilst every effort is made to ensure that the information is reliable, we cannot accept responsibility for any work carried out with our materials as we have no controls over methods of applications, site conditions etc. In view of the continuing research and development being undertaken in our laboratories we advise customers in their own interest to ensure that this data sheet has not been superseded by a more up-to-date publication. All products are sold subject to our standard conditions of sale which are available on request. Field services, where provided, does not constitute supervisory responsibility. For additional information, please contact your local Chem Coats representative.

## RANGE OF PRODUCTS

WATERPROOFING SYSTEMS  
INDUSTRIAL FLOOR SURFACES  
PROTECTIVE COATINGS

PREPACKED REPAIR MORTARS  
CEMENTITIOUS & EPOXY GROUTS  
CONCRETE ADMIXTURES

SEALANTS  
CRACK INJECTION  
CONCRETE ADHESIVE