

STEF CEMENTITIOUS PLUS

(FLEXIBLE TWO-COMPONENT CEMENTITIOUS WATERPROOFING)

1. PRODUCT DESCRIPTION

STEF Cementitious Plus is a high-performance, two-component waterproofing system consisting of a polymer-modified liquid component mixed on site with Portland cement. Once mixed and cured, it forms a seamless, flexible and strongly bonded cementitious membrane that protects concrete and masonry substrates against water penetration.

The product is designed for areas exposed to continuous or intermittent water contact and is especially suited to the internal waterproofing of concrete water-containment structures.

2. RECOMMENDED USES

Concrete potable-water tanks and drinking-water reservoirs
 Concrete water wells, cisterns and underground water-storage chambers
 Swimming pools, decorative pools and fountains
 Domestic water tanks, irrigation tanks and service-water reservoirs
 Bathrooms, shower areas, wet rooms and kitchens
 Balconies, terraces, roofs, basements and retaining walls
 Concrete and masonry surfaces requiring a continuous waterproofing membrane

3. KEY ADVANTAGES

Excellent adhesion to properly prepared concrete, blockwork and cement render
 Low water absorption and reliable resistance to water penetration
 Flexible cementitious membrane that accommodates normal substrate movement
 Seamless application by brush, roller or suitable trowel
 Suitable for interior and exterior applications
 Can be applied to vertical and horizontal surfaces
 Water-based liquid component; tools clean with water while the material is wet

4. POTABLE-WATER APPLICATIONS

When mixed and applied in accordance with this Technical Data Sheet, STEF Cementitious Plus is suitable for waterproofing concrete tanks, reservoirs, cisterns and water wells intended to contain potable (drinking) water. Allow the complete system to cure fully, then rinse the tank thoroughly with clean water before filling. The tank must not be placed into service before the full curing period has been completed.

5. PACKAGING AND MIXING RATIO

Liquid component	18 kg STEF Cementitious Plus
Portland cement	9 kg Portland cement, added to the liquid component
Mixing ratio	2 parts liquid component : 1 part Portland cement by weight
Mixed yield	Approximately 27 kg

Mixing procedure: Pour the STEF Cementitious Plus liquid component into a clean mixing container. While mixing with a low-speed mechanical mixer, gradually add the measured Portland cement. Mix until a smooth, uniform and lump-free consistency is obtained. Allow the mixture to rest for 5 minutes, then remix for approximately 1 minute before application. Do not add water or unapproved additives.

6. SURFACE PREPARATION

The substrate must be sound, stable, clean and free from dust, laitance, loose particles, grease, oil, wax, curing compounds, paint and any material that may reduce adhesion. Remove weak or contaminated concrete mechanically and repair voids, honeycombs and damaged areas with a compatible cementitious repair mortar.

Treat cracks, wall-to-floor junctions, pipe penetrations, corners and construction joints with the appropriate STEF detailing system before applying the membrane. Dampen absorbent cementitious substrates with clean water to a saturated-surface-dry condition; no standing water shall remain.

7. APPLICATION

Apply the first coat evenly by stiff brush, roller or suitable trowel, working the material firmly into the prepared substrate. Allow the first coat to set sufficiently, then apply the second coat in a direction perpendicular to the first. A minimum of two coats is required. Avoid pinholes, missed areas and excessive build-up in a single coat.

Number of coats	Minimum 2 coats
Recommended total thickness	Approximately 3.2 mm (1/8 in), subject to project requirements
Application temperature	Minimum 5°C (41°F) during application and for at least 24 hours afterward
Approx. drying time	24 hours at 21°C (70°F) and 55% RH; longer in cool or humid conditions
Typical coverage	Approx. 50-60 m ² per coat per 17 L container, depending on substrate and application thickness

8. CURING AND PROTECTION

Protect the freshly applied membrane from rain, frost, direct water flow, rapid drying, strong wind, dust and physical damage. Allow adequate ventilation in enclosed tanks and reservoirs. Do not backfill, tile over, fill with water or expose the membrane to service conditions until it has cured fully. For potable-water tanks, rinse thoroughly with clean water after full cure and before filling.

9. TECHNICAL PERFORMANCE

Property / Test	Requirement / Condition	Typical Result
Mixed density	Mixed membrane	1.7 g/cm ³
Workability	At normal application temperature	Very good
Pot life	20°C (68°F)	Approx. 7 hours
Adhesion	CCMC 5.3.3 / ASTM D1623	0.94 MPa on concrete
Water-pressure resistance	4 psi for 48 hours / TTP-00141	Pass
Water absorption coefficient	72 hours / CCMC 5.4.4 / ISO 15148	0.0035 kg/(m ² ·s ^{1/2})
Accelerated ageing	250 hours / CCMC 5.4.6 / ASTM G154	Pass - no negative effect

10. LIMITATIONS

Do not apply to frozen surfaces, standing water, unsound substrates or surfaces contaminated with bond-breaking materials.

Do not add water, sand, fillers or additives unless specifically approved by STEF.

Do not bridge active structural cracks or moving joints; these require an engineered joint-detailing solution.

Not intended as an exposed decorative finish or traffic-bearing surface unless protected by an approved compatible system.

Actual coverage and drying time vary with substrate profile, film thickness, temperature, humidity and application method.

11. STORAGE AND SHELF LIFE

Store the liquid component tightly sealed in its original container, out of direct sunlight, between 5°C (41°F) and 21°C (70°F). Protect from freezing. Shelf life is 12 months when stored correctly in unopened packaging.

12. CLEANING, SAFETY AND TRANSPORTATION

Clean tools and equipment with water immediately after use, before the material hardens. Wear suitable gloves, eye protection and protective clothing. Avoid prolonged skin contact and inhalation of cement dust during mixing. Refer to the current Safety Data Sheet before use.

Regulated shipping name: Not applicable. TDG category: Not regulated. No special measures are normally required for international transport; always follow applicable local transport regulations.

IMPORTANT NOTICE

The information and recommendations in this Technical Data Sheet are based on data believed to be reliable and are provided in good faith. Site conditions, substrate quality and application methods are beyond the manufacturer's control. The user is responsible for confirming product suitability, completing any required project-specific testing and following applicable potable-water, health, building and safety regulations.

The instructions on the application and on its performance characteristics are based on information we believe to be reliable. They are provided to the best of our knowledge, but without guarantee, since the conditions and methods of use of our products are beyond our control.



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