

DESCRIPTION



TamSeal 10F is a two-component acrylic modified cementitious coating that requires only on-site mixing to form the ideal product to waterproof and resurface concrete, masonry and most other construction materials. TamSeal 10F comes in two grades Standard for general application and HDB for higher flexibility requirements. TamSeal 10F provides an effective barrier to waterborne salts and atmospheric gases. It also provides a hardwearing, seamless, waterproof membrane for roofs and concrete protection. TamSeal 10F should not be left unprotected, but covered by tiles or other protective coatings.

KEY BENEFITS

- > WRc & PUB Singapore approved
- > Singapore Housing & Development Board (HDB) approved
- > Singapore Environment Council approved for Green Label mark
- > A 1mm coating provides an anti-carbonation cover equivalent to over 800 mm of concrete
- > Waterproof – resists up to 15 bar (150 m head) of positive pressure. Resists up to 3 bar (30 m head) of negative pressure.
- > Excellent adhesion, bonds to porous and non-porous surfaces
- > Flexible
- > Non-toxic – ideal for potable water uses
- > Light trafficable
- > Breathable – whilst repelling water, allows substrate to breathe
- > High resistance to carbon dioxide and chloride ion diffusion
- > Unlike conventional coatings, which require the concrete to cure for 7 - 28 days, TamSeal 10F can be applied to 24 hour-old concrete thereby giving immediate protection.
- > Can be spray applied using a hopper gun

TYPICAL APPLICATIONS

- > To reface concrete surfaces
- > Waterproof lining
- > For coating seawater channels
- > Sealing and coating tie bar holes
- > Bathroom, wet areas and planter boxes
- > As a waterproof coating for specific roofs (protected)
- > For fixing tiles in water retaining structures
- > Protection against carbonation and chloride attacks
- > Waterproof membrane for swimming pools

TECHNICAL DATA

TamSeal 10F / TamSeal 10F HDB		
	Component A	Component B
Form	Powder	Liquid
Colour	Grey	Milky White
Density	-	1.03
Bulk density	1.40	-
Application temperature	Not less than +4°C	
Properties	STD	HDB
Mix ratio by weight powder : liquid	25:10	25:16
Elongation ASTM D2370	> 100%	>150%
Adhesion to substrate ASTM D4541	> 0.4 N/mm ²	
Tensile strength unreinforced ASTM D2370	> 1.6 N/mm ²	> 1.5 N/mm ²
Water permeability coefficient K m/s	5.84 x 10 ⁻¹³	
Water penetration Din 1048		0 depth
Toxicity	Non-toxic	
Resistance to water pressure (2 mm coating) Taywood Test	15 bar positive (no leakage) 3 bar negative (no leakage)	
Diffusion coefficient for oxygen DO ₂ (cm ² s ⁻¹)	2.89 x 10 ⁻⁵	
Diffusion coefficient for carbon dioxide DCO ₂ (cm ² s ⁻¹)	9.12 x 10 ⁻⁶	
Oxygen diffusion	R=32	

Flexible Cementitious Waterproofing Membrane

Effect of Water Pressure

TamSeal 10F resists water pressure up to 15 bars (150 meter head). The degree of resistance of TamSeal 10F to water under pressure depends on the coating thickness.

Pressure	Application Rate
3 bar negative	2.0 kg/m ²
15 bar negative	2.0 kg/m ²

Chemical Resistance

TamSeal 10F has good chemical resistance to gasoline, diesel, oil, Sodium Hydroxide, Calcium Chloride, de-icing salts and treated sewage.

All technical data stated herein is based on tests carried out under laboratory conditions.

APPLICATION GUIDELINES

- > All surfaces must be thoroughly cleaned and free from laitance, loose material, dust, dirt, oil, grease, general grime, all contaminants, etc.
- > All non-structural and structural cracks should be properly repaired or treated.
- > Any holes or indentations should be filled with TamCrete 40 mortar or TamCrete GP.
- > All renders, coatings, and tiling should be removed back to the structure to be waterproofed. Brick pointing should be made flush.
- > All old repairs should be inspected and repaired where necessary. Any loose friable concrete or brickwork should be cut out and properly repaired.
- > Newly laid concrete can be coated after 24 hours or as soon as it can be walked on.
- > Leaking construction joints or cracks should be treated with TamPur 130 or TamPur 150 before coating.
- > Apply 45° fillets to all internal angles, using TamCrete Plug or TamCrete PolyPlug or if time permits, sand and cement.

Mixing

TamSeal 10F consists of two components – Powder (Part A) and liquid (Part B). You should always add the powder (Part A) to the liquid (Part B) and mix using clean containers and a slow speed paddle mixer until the material is homogenous. Keep mixed throughout application. **Do not add water.** Mix only the amount that can be applied in 20 - 40 minutes (dependent on temperature and ventilation).

Surface Application

- > Dampen (with potable water no free standing water) all surfaces before applying the first coat of TamSeal 10F.
- > Particular attention should be made at expansion joints and over movement cracks.

New Expansion Joints: TamSeal 10F should be taken well into the rebate before the expansion media is applied.

Old Expansion Joints: The joints should be inspected and repaired. Mask over media with de-bonding tape. Apply one coat of TamSeal 10F over the joint to 100mm either side. Reinforce by thoroughly wetting-in 30gm glass fibre mat or plasterers polyurethane scrim whilst the TamSeal 10F remains wet and uncured. Allow to dry.

Movement Cracks: follow guidelines for Old Expansion Joints.

Application of the main coating system:

- > Apply the first coat of TamSeal 10F using a brush, roller or trowel at a coverage rate of 1.8 kg per m², for HDB grade apply at 1 kg per m², making sure that it is evenly coated.
- > Apply the second coat at right angles to the first coat to ensure proper coverage at a coverage rate of 1.8 kg per m² and for HDB grade 1.0 kg per m².
- > Allow the TamSeal 10F coating to completely dry before light foot traffic. For heavier usage protect with a floor screed.
- > Water bearing structures can be filled with water 24 hours after the TamSeal 10F has cured.
- > Do not apply to bitumen.
- > The total application should not exceed 3 mm thick otherwise splitting or cracking may occur.

Note: Coverage rate may vary with substrate condition.

PACKAGING

TamSeal 10F is supplied in 35 kg set.

Part A (Powder) = 25 kg **Part B** (Liquid) = 10 kg

TamSeal 10F HDB is supplied in 41 kg set.

Part A (Powder) = 25 kg **Part B** (Liquid) = 16 kg

STORAGE

TamSeal 10F should be stored at room temperature (min 4°C and max 30°C), kept dry and out of direct sunlight. If these conditions are maintained and the product packaging is unopened, then a shelf life of up to six months can be expected.

HEALTH & SAFETY

TamSeal 10F should only be used as directed. We always recommend that the Safety Data Sheet (SDS) is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The Safety Data Sheet is available upon request from your local Normet representative.