

PRODUCT DESCRIPTION

TAL SUREPROOF is a tough, flexible and seamless rapid-setting two-component (2K) slurry-applied waterproofing membrane. It is suitable for waterproofing shower recesses, internal wet areas, external decks, planter boxes and exposed concrete rooftops.

Applied by brush or (short hair) enamel paint roller, TAL SUREPROOF possesses excellent flexibility and UV resistance which allows it to be left exposed on **non-trafficable** roof slabs and parapet walls.

Note : TAL SUREPROOF MEMBRANE must be used as reinforcing in all internal corners and interfaces, coving areas, around drains, etc.

TAL SUREPROOF, when cured, is safe for use in applications where it will be in direct contact with potable (drinking) water.

The TAL SUREPROOF system consists of :
 TAL SUREPROOF liquid – water based, non-toxic, low viscosity flexible acrylic co-polymer developed to combine with TAL SUREPROOF powder
 TAL SUREPROOF powder – a grey powder composed of cement, fine graded sands and synthetic resins specially formulated to combine with TAL SUREPROOF liquid
 The TAL SUREPROOF system must be used in conjunction with :
 TAL FLOOR PRIMER – primer for porous surfaces or
 TAL FLOORKEY – primer for smooth, dense surfaces
 TAL SUREPROOF MEMBRANE (200mm wide) – used as reinforcement in coving areas, internal corners and interfaces, around drains, and over cracks in the substrate

Classification According to EN14891 :

TAL SUREPROOF is classified as a CMO membrane material (Cementitious Liquid-applied Water Impermeable Membrane (CM), with Crack Bridging Ability at Low Temperature (O)).

VOC Content :

Specification : Green Building Council of South Africa
 Office Design V1 IEQ-13
 Green Star Office Interiors V1.1 IEQ-11

Architectural Sealant : Maximum Limit
 250 grams per Litre as VOC content material

TAL SUREPROOF :
 75g / L as VOC content material

AREAS OF APPLICATION

TAL SUREPROOF can be applied onto :

- Rooftops and decks that require a moderately textured and tough membrane. Only **occasional** light foot traffic, such as service technicians conducting routine inspection/ maintenance, is permissible.

- Planter boxes, retaining walls and basements **NOT** subjected to rising damp.
- Bathrooms, shower recesses, laundries, and all wet areas requiring a tiled finish.
- Swimming pools and wading pools when covered with tiles or decorative toppings.
- Climates with low temperatures or high humidity where drying times are normally extended.
- Wet areas where low moisture evaporation and poor ventilation extends the drying times of single component membranes.
- Water containment areas such as water features, ponds and fountains (note – high levels of alkalis or acids could be detrimental to TAL SUREPROOF unless suitably protected).
- Hairline cracked concrete requiring a seamless membrane capable of accommodating moderate expansion and contraction TAL SUREPROOF has excellent crack-bridging abilities.
- Walls and floors over concrete, cement render, marine plywood, metal, fibre-cement sheets, and exterior grade plasterboard.

PRECAUTIONS

- TAL SUREPROOF is non-hazardous. However, in the case of eye contamination, rinse thoroughly and seek medical advice.
- TAL SUREPROOF should **NOT** be used over surfaces where rising damp is a problem.
- Do not apply TAL SUREPROOF in temperatures below 10°C or greater than 30°.
- When applying TAL SUREPROOF externally (ie balconies, roof slabs, etc) the waterproofing application should not be commenced if rain appears imminent. (It should be protected from rain or water immersion for at least 48 hours after application.)
- TAL SUREPROOF is to be used as supplied by the manufacturer.
 Do not attempt to thin the liquid or add sand to the powder as this will adversely affect the final performance and cause cracking.
- Do not tile over TAL SUREPROOF until it has fully cured (24 – 36 hours, depending on ambient conditions and surface porosity) and do not leave exposed to foot or vehicular traffic.
- Contact TAL when excessive cracks or joints in the substrate are encountered.
- When applying TAL SUREPROOF externally (ie balconies, roof slabs, etc) the waterproofing application must not be commenced if rain appears imminent.

TECHNICAL DATA

Characteristics of liquid material	
Form and colour	White liquid
Specific gravity	1.0
pH of liquid	7.0 – 9.0
Viscosity of liquid (Brookfield, spindle 3, speed 20)	1000 – 2000cps
Non-volatile matter	48 – 50%
Characteristics of powder material	
Form and colour	Grey powder
Bulk density	± 0.90kg/L
Characteristics of mix	
Mixing ratio of powder : liquid	1 : 1
Specific gravity	1
Viscosity of liquid (Brookfield, DV-E 5/20/25°)	12000 – 20000cps
Tack free time (Depending on surface porosity, ambient conditions and airflow/ventilation)	± 2 hours
Pot life	± 1 hour

SURFACE PREPARATION

All substrates must have a moisture content of 5% or less before the TAL SUREPROOF application can be commenced.

New floor and wall surfaces must be allowed to cure for the minimum periods detailed below to ensure that the waterproofing and tile installation is not compromised by drying shrinkage movement in the substrate :

- New concrete – 6 weeks
- New screed – 4 weeks
- New brickwork – 4 weeks
- New render – 2 weeks

Any screeding or rendering must be firmly attached to the underlying concrete or brickwork, and the substrate must be structurally sound (no crumbling, cracking, etc) and of a quality and consistency suitable for tiling. All damaged, defective, deteriorated or hollow sounding areas must be removed and made good before proceeding.

The substrate must be clean and free from all traces of surface laitance and contamination such as dust, dirt, waxes, oils, bitumen, old adhesives, paint, grease, weak cement screeds and renders, shutter release and curing agents, sealing compounds, etc. Organic or fungal growth must be removed and the spores killed using an effective fungicide.

Any surface defects must be made good (holes can be filled using TAL RAPIDFIX mixed with TAL SCREEDBINDER, as a total water replacement) and all protrusions which may pierce the membrane must be removed.

Boards and sheets must be in good condition, firm and sound and must be thoroughly braced (ie securely fastened to the framework) at maximum 300mm centres in both directions (screwed, not nailed).

TAL SUREPROOF can be applied to a damp (**but not wet**) surface. Dry surfaces are preferred.

PRIMING

All substrates to be waterproofed must be primed prior to the waterproofing application, as follows :

- **Woodfloated (rough, porous) surfaces** - prime with a coat of neat TAL FLOOR PRIMER
- **Powerfloated or steelfloated (smooth, dense) surfaces** prime with a slurry consisting of 1 part TAL FLOORKEY mixed with 2 parts TAL RAPIDFIX powder, TAL KEYMIX powder or TAL GOLDSTAR 6 or 12 powder (by volume), which is applied using a block brush.
- **Wooden surfaces (exterior grade)** – prime with TAL SUPERPRIME, then prime with a TAL FLOORKEY slurry within 6 – 30 HOURS of the TAL SUPERPRIME application
- **Metal surfaces** – mechanically abrade, solvent wipe (TAL CLEANING SOLVENT), prime with an anti-corrosive primer, then apply a TAL FLOORKEY slurry
- **Partition walling (exterior grade)** – prime with a coat of neat TAL FLOOR PRIMER. Allow to dry, then apply a second coat of TAL FLOOR PRIMER in a cross direction Allow the priming coat to dry, approximately 2 – 3 hours depending on ambient conditions.

MIXING

Mixing ratio of powder : liquid is 1:1, ie 10kg powder to 10L liquid. **For optimum results it is recommended to mix the entire kit in one mix, ie part mixing of the components is not recommended.** Pour the powder into the liquid whilst stirring with a low speed mechanical stirrer and stir at low speed until a smooth, lump-free viscous liquid is obtained. Allow to stand for a few minutes and then mix again before use. The pot life of TAL SUREPROOF is approximately 1 hour at 23°C and 50% RH.

APPLICATION

Small cracks :

TAL SUREPROOF can be used to fill small hair-line shrinkage cracks. For cracks over 2mm, the following preparation is required:

- Remove loose particles and clean thoroughly.
- Fill the cracks with a high quality flexible silicone sealant.
- Apply the first coat of TAL SUREPROOF, then immediately apply the TAL SUREPROOF MEMBRANE into the wet coat. Immediately apply a second coat of TAL SUREPROOF to completely saturate the membrane.

Movement and Construction Joints (Will tolerate Normal Building Movement):

- Remove loose particles and clean thoroughly.
- Prime with TAL FLOOR PRIMER.
- Fill the joints with a high quality flexible silicone sealant.
- Apply the first coat of TAL SUREPROOF, then immediately apply the TAL SUREPROOF MEMBRANE into the wet coat. Immediately apply a second coat of TAL SUREPROOF to completely saturate the membrane.
- **NOTE :** When tiling, all movement joint and construction joints must be carried through to the face of the tiles.
- Fill the joints between the tiles on top of the movement joints with an appropriate good quality resilient joint sealant.

Joins in Boards and Sheets

- Remove loose particles and clean thoroughly.
- Prime the substrate as instructed in **PRIMING** above.
- Apply a coat of TAL SUREPROOF by block brush or **short hair enamel** paint roller over all joins in the partition walling and wooden panels. Immediately roll out the TAL SUREPROOF MEMBRANE (200mm wide) into the wet TAL SUREPROOF with the membrane extending 100mm equally on either side of the interface, ensuring that there are no wrinkles or air bubbles trapped beneath the membrane. Apply a heavy topcoat of TAL SUREPROOF to completely saturate the membrane before the first coat of TAL SUREPROOF dries.

Coving Areas / Internal Corners & Interfaces / Tap & Rose Plumbing

- Remove loose particles and clean thoroughly.
- Prime the substrate as instructed in **PRIMING** above.
- To allow for movement, apply a 10mm bead of flexible silicone sealant in the coving areas, in all horizontal and vertical corners and interfaces, and around the tap and rose plumbing. Due care must be taken to ensure that the silicone bead is not flattened out - ie the silicone must be allowed to cure for approximately 12 – 24 hours.
- Apply the first coat of TAL SUREPROOF, then immediately apply the TAL SUREPROOF MEMBRANE into the wet coat. The membrane must be pushed into the corners, ensuring that the entire interface is covered with TAL SUREPROOF MEMBRANE. Apply a second coat of TAL SUREPROOF to completely saturate the membrane before the first coat dries.
- The TAL SUREPROOF application should be taken up underneath any existing cover flashing or appropriate flashing should be applied.

Floor Wastes & Drains

- Apply a coat of TAL SUREPROOF up the pipe and immediately bed the TAL SUREPROOF MEMBRANE into the wet TAL SUREPROOF. Apply a heavy coat of TAL SUREPROOF over the membrane to completely saturate the membrane before the first coat dries
- For wastes that are flush with the floor, take the application down into and around the waste or use the puddle flange system (check local council regulations)

Roof Penetrations :

- Place a suitable flanged metal upstand around pipes or vents.
- Approximately 20cm if the pipe from the surface of the slab should be mechanically abraded to roughen it and remove all traces of surface contaminants. After sanding, metal surfaces must be solvent wiped, using TAL CLEANING SOLVENT, to remove any residual release oil residues.
- Metal pipes must be primed with an anti-corrosive agent (eg zinc chromate), which must be left to dry completely before proceeding. All pipes must be primed with a TAL FLOORKEY slurry. Allow the slurry coat to dry completely before proceeding.

- To allow for movement, apply a 10mm bead of flexible silicone sealant around the base of the pipe. Due care must be taken to ensure that the silicone bead is not flattened out- ie the silicone must be allowed to cure for approximately 12 – 24 hours.
- Apply the first coat of TAL SUREPROOF, then immediately bed the TAL SUREPROOF MEMBRANE around the pipe and surrounding substrate. The membrane must be pushed into the corners, ensuring that the entire interface is covered with TAL SUREPROOF MEMBRANE. Apply a heavy topcoat coat of TAL SUREPROOF to completely saturate the membrane before the first coat dries.
- Place a suitable flashing collar around the penetration, sealing it to the pipe with a suitable flexible sealant.

Roof Slabs and Balconies :

- Roof slabs and balconies must have a minimum slope of one degree and provisions for drainage.
- Prime the substrate as instructed in **PRIMING** above.
- Address any **Coving Areas, Corners & Interfaces, Floor Wastes & Drains and Roof Penetrations** as detailed above.
- **Two coats of TAL SUREPROOF must be applied to ensure a minimum of 1.2mm thickness is achieved.** Apply the first coat of TAL SUREPROOF to the dry, primed surface with a block brush or **short hair enamel** paint roller and allow to dry (approximately 1 – 2 hours).
- Apply the second coat of TAL SUREPROOF in a cross direction to ensure complete coverage, with no air entrapment or pinholes.
- Ensure that the main application overlaps the corner and floor waste applications by at least 50mm.
- Allow the TAL SUREPROOF system to dry completely (approximately 24 hours, depending on ambient and site conditions) before being subjected to light foot traffic or the application of covering materials, eg ceramic tiles.
- **Note : The waterproofing application must not be commenced if rain appears imminent.**

Shower Recesses :

- Prime the substrate as instructed in **PRIMING** above.
- Address any **Coving Areas, Corners & Interfaces, Floor Waste & Drains, and Tap & Rose Plumbing** as detailed above.
- **Two coats of TAL SUREPROOF must be applied to ensure a minimum of 1.2mm thickness is achieved.** Apply the first coat of TAL SUREPROOF to the dry, primed surface with a block brush or short hair enamel paint roller and allow to dry (approximately 1 – 2 hours).

- Apply the second coat of TAL SUREPROOF in a **cross direction** to ensure complete coverage, with no air entrapment or pinholes.
- Ensure that the main application overlaps the corner and floor waste applications by at least 50mm.
- NOTE : The TAL SUREPROOF system must extend at least 50mm above shower plinth height and where no plinth exists, at least 100mm above the highest point of the shower recess floor. It is advisable to flood test the shower 24 hours after curing. This should be done before tiling commences.

DRYING TIME

Usually within 24 – 36 hours, depending on ambient temperatures and surface porosity. TAL SUREPROOF dries by reaction between powder and liquid, moisture evaporation and absorption into the substrate, so allow longer for surfaces with low porosity.

Allow TAL SUREPROOF to cure before tiling is commenced. Do not use showers for at least 72 hours after application of TAL SUREPROOF. This ensures application is thoroughly cured.

TILING OVER SUREPROOF

Allow the TAL SUREPROOF system to dry (approximately 24 - 36 hours, depending on ambient conditions) before fixing tiles.

ADHESIVE : Use TAL GOLDSTAR 6 mixed with TAL BOND (replacing the water in the mix) to fix the tiles in a solid bed of adhesive. **Alternatively**, TAL BOND POWDER may be added to the adhesive mixing water, at a ratio of 1 x 1kg sachet per 20kg TAL GOLDSTAR 6.

GROUT : Allow the adhesive to set sufficiently, and then grout with TAL WALL & FLOOR GROUT mixed with TAL BOND (replacing the water in the mix). **Alternatively**, TAL BOND POWDER may be added to the grout mixing water, at a ratio of 1 x 1kg sachet per 20kg TAL WALL & FLOOR GROUT.

COVERAGE

Coverage is approximately 10 - 12m² per 20kg kit at 1.2mm thick cured film. This is also dependent on the amount of TAL SUREPROOF MEMBRANE used.

PACKAGING

TAL FLOOR PRIMER is available in 5L and 25L bottles
TAL FLOORKEY is available in 5L and 25L bottles
TAL SUREPROOF is available in 20kg kits.
TAL SUREPROOF MEMBRANE is available in 200mm x 10m rolls.

STORAGE & SHELF LIFE

When stored in dry internal conditions between 10°C and 30°C and out of direct sunlight the product has a shelf life of 6 months from date of manufacture. Never store directly on a concrete floor.

WARNING

DO NOT INGEST. USE ONLY AS DIRECTED. WEAR PROTECTIVE GLOVES AND GOGGLES. USE A SUITABLE DUST MASK WHEN MIXING. WORK IN A WELL VENTILATED AREA. DISPOSE OF THIS PRODUCT IN ACCORDANCE WITH LOCAL REGULATIONS. CONTACT TAL FOR FURTHER HEALTH AND SAFETY INFORMATION.