

PermaSEAL Tanking Slurry



Description

PermaSEAL Tanking is a blend of Portland cements, quality graded aggregates and chemical modifiers which provide a waterproof cement based coating system for brickwork, masonry and concrete.

The product is mixed with water on site and applied directly to the surface by brush or spray. The special mix design enables excellent adhesion to construction surfaces and is safe to apply on damp substrates.

After hardening PermaSEAL Tanking becomes a vapour permeable and water pressure tight coating for protecting above and below ground structures against water ingress.

Uses

- Tanking of basements and cellars
- Above ground damp proofing
- Sealing of tanks and ducts
- Internal and external waterproofing
- Lining of storage tanks for potable water
- Coating of brick and block work structures
- Waterproofing to BS 8102:2022 for Type A shallow basement structures – Grades 1, 2 and 3

Advantages

- Single component product (just add water)
- Excellent adhesion to prepared surfaces
- Easy to apply by brush
- Microporous (breathable)
- Durable and long lasting
- Supplied in grey and white
- Conforms to BS 8102:2022 as a polymer-cement based waterproof coating for Type A shallow basement structures – Grades 1, 2 and 3

Preparation

All contact surfaces must be clean and sound. Remove all loose material, laitance, dust and any previous coatings back to clean brickwork, masonry or concrete. All surfaces must be well keyed and if necessary, the substrate can be prepared by suitable mechanical means such as grit blasting, high pressure jet washing or shot blasting.

Any foreign materials in the surface such as nails, timber etc will need to be removed. Any loose joints must be raked out 20mm and any voids must be cleaned.

Once clean these areas can be filled flush with PermaSEAL Fillet Seal prior to tanking. Any physical water ingress should be stopped with PermaSEAL Water Stop before over coating with PermaSEAL Tanking.

Please note: surfaces must be smooth and void free, in the instance of concrete blocks, surfaces with air entrapped in them or random stone walls we suggest 3:1 sand/cement scratch coat with the addition of PermaPROOF Waterproofing should be applied to provide a sound, even base prior to the application of PermaSEAL Tanking.

Priming

On dry surfaces, to assist the coating in fully wetting out the substrate, this background should be dampened. Before application the surface must be damp but not wet, any surface water must be removed.

Where the substrate is contaminated with salts it is essential to apply PermaSEAL Salt Inhibitor to the surface as specified before the application of PermaSEAL Tanking (See separate product data sheet).

Mixing

PermaSEAL Tanking is supplied in 20kg units. The water requirement to produce the coating is 6 to 7 litres of clean water per 20kg of dry powder.

Mechanical mixing is recommended using a slow speed high torque drill with a mortar stirrer. Pour the required quantity of water into a suitable mixing vessel. Slowly add the powder to the water whilst continuously mixing. Mixing should be continued for three minutes after all the powder has been added to the mixing water to obtain a "creamy" consistency. All the powder must be fully blended.

Coating

PermaSEAL Tanking should be applied by brush or spray in a minimum of two coats. The first coat should be brushed in a horizontal direction down to the floor and across the fillet if applicable.

The second coat should be applied whilst the first coat is still damp which can be within 2-5 hours however this can vary depending on local conditions such as humidity and temperature. It is essential that the first layer is not damaged during application of the second coat.

Apply a second coat of PermaSEAL Tanking in a vertical direction again covering the fillet with the coating if applicable.

Do not leave more than 24 hours between coats.

If the floor is not being coated with PermaSEAL Tanking then the coating should be taken a minimum of 250mm across the floor before terminating.

When joining a floor and wall or corners it is essential to create a fillet at the junction (See PermaSEAL Fillet Seal Data Sheet).

Application Notes

Do not re-temper stiffened material. PermaSEAL Tanking should not be applied to frost filled surfaces or when the temperature is 5°C and falling or 25°C and rising.

PermaSEAL Tanking should not be used in situations where structural movement is expected or has previously occurred (Consult our technical department).

Curing

PermaSEAL Tanking is a cement based coating so will dry with the same characteristics as concrete. It is essential that the coating does not dry too fast as cracking could occur.

It is common during the initial drying phase for moisture to form on the tanking surface on internal applications, which is known as 'sweating'.

This is a natural part of the curing process caused by water vapour condensing onto cold surfaces. The level of sweating will vary according to how much ventilation is available, and the type of heating employed.

When used externally in warm or windy weather, mist spraying must be used to compensate for moisture loss. If the slurry dries too quickly then cracking may occur.

Coverage

Coarse surface: 2.5kg to 3kg/m²/coat
6.5 to 8m² per 20 kg unit/ coat

Smooth surface: 2kg to 2.5kg/m²/coat
8 to 10m² per 20 kg unit/ coat

Technical Data

Initial Set @ 20°C	330 Minutes
Working Time @ 20°C	Up to 1 Hour
Resistance to positive water pressure	0.6MPa (60m head)
Resistance to negative water pressure	0.4MPa (40m head)
Capillary water absorption	<1.3kg/(m ² h0.5)
Bond strength	>1.5MPa

Condensation

Below ground structures are prone to condensation and this is generally caused by poor ventilation and inadequate heating. Even after the initial drying period is over condensation may occur if the right circumstances prevail. Therefore, due consideration should always be given to correct ventilation and heating where necessary.

Finish and Decoration

PermaSEAL Tanking should always be covered by a minimum 10mm coat of 4:1 sand and cement render, a 1:1:6 Lime based render or PermaSEAL Renovating Plaster. After this render coat has been applied dot and dab plaster board or a multi finish can be applied. Any initial decoration should be considered as temporary and restricted to a low cost trade emulsion. Plastic, vinyl or eggshell paints should not be used.

Storage and Shelf Life

PermaSEAL Tanking has a shelf life of 6 months in bags and 12 months in buckets when kept in dry conditions at a temperature of 5°C to 25°C.

Health and Safety

Refer to latest health and safety data sheet