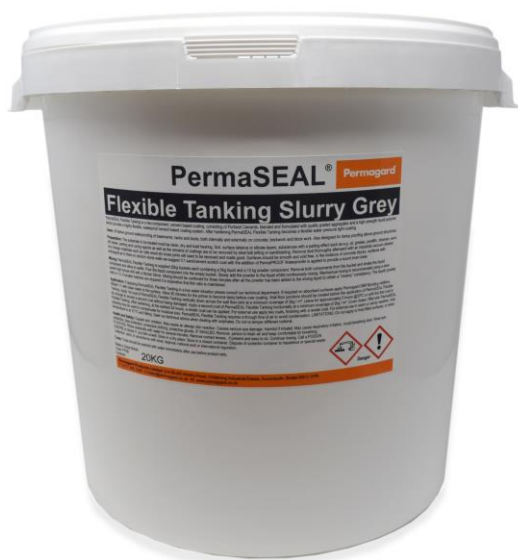# PermaSEAL Flexible Tanking Slurry

Description

PermaSEAL Flexible Tanking is a blend of Portland cements, quality graded aggregates and a high strength liquid polymer which provide a highly flexible, waterproof cement-based coating system for brickwork, masonry and concrete.

The components are mixed together on site and applied directly to the surface by brush. The special mix design enables excellent adhesion to construction surfaces and is safe to apply on damp substrates. Suitable for areas at risk of movement in both external and internal environments.

Uses

Waterproofing of areas that are subject to vibration or minor movements, that are made from concrete, brickwork or stone.

- Tanking of basements, cellars, lift pits
- Above ground damp proofing
- Podium decks, balconies/terraces, flat roofs
- 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 8102:2009 for Type A shallow basement structures – Grades 1, 2 and 3

Advantages

- Two component product supplied in a bucket
- Crack bridging capabilities
- Highly flexible
- Resists both positive and negative water pressure
- Can be used both internally and externally
- Excellent adhesion to prepared surfaces
- Easy to apply by brush
- Conforms to BS 8102:2009 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 Flexible 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 Waterproofer or PermaSEAL Fillet Seal should be applied to provide a sound, even base prior to the application of PermaSEAL Flexible Tanking.

Priming

Dilute Permagard SBR Bonding Additive 1:1 (by volume) with clean water. Then apply to the surface with a roller, brush or spray. Allow 30 minutes for the primer to become tacky to the touch.

Mixing

Remove contents from bucket and shake the liquid component and allow to settle. Pour the liquid into an empty bucket. Using an electric paddle, slowly start to add the powder into the bucket. Make sure to do this slowly so as to reduce dust generation. Add all of the powder and increase speed so vigorous mixing is achieved. Mix for 2 minutes and ensure that all powder is incorporated.

Mix for a further 1 minute to ensure the product is free of any lumps. Tap water can now be added to achieve the desired consistency. A maximum of 0.5L of tap water can be added without it affecting the crack bridging properties. The liquid/powder ratio is 1:3 If smaller batches are required it is imperative that this ratio is maintained.

Do not add any additional components e.g. sand, cement etc, as this will dramatically impact the properties of the product.

Coating

PermaSEAL Flexible Tanking should be applied by brush, trowel or roller 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 to a minimum thickness of 1mm.

The second coat should be applied once the first coat has had sufficient time to cure to a state that it will accept the second coat without being damaged. Approximately 5 hours @ 20°C 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 Flexible 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 Flexible 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 Flexible Tanking should not be applied to frost filled surfaces or when the temperature is 5°C and falling or 25°C and rising. Not tested for use in swimming pools. If the product is being used externally it must be covered within 72 hours of application and not left as the final finish. Product cannot be used for multiple coats unless components are weighed out and mixed in two batches.

Curing and Ventilation

PermaSEAL Flexible 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 the slurry must be protected to prevent drying too quickly as cracking may occur.

Coverage

Product must be applied at 2kg/m²/coat. Each unit will cover up to 5m² per 20 kg unit/ for two coats.

Technical Data

Pot life	40 minutes
Resistant to rain @ 20°C	6 hours
Resistant to foot traffic @ 20°C	24 hours
Crack bridging ability @ 20°C	1.5mm
Crack bridging ability @ -5°C	1.5mm
Adhesion strength – ambient	0.8 N/mm²
Adhesion strength – immersed	0.6 N/mm²
Water resistance pressure	7 bar

Packaging

20kg bucket – two components: powder and liquid

Finish and Decoration

PermaSEAL Flexible 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 Flexible Tanking Slurry has a minimum shelf life of 12 months in the original bucket fully sealed, 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