M3 FLOODTEC

Tanking Polymer

Technical Instructions

At M3 we are continually searching the Globe for new technologies and working processes that we can harness to enable us to deliver Innovative solutions that benefit the Environment and provide enhanced value to our Clients

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Introduction

Tanking Polymer

M3 Floodtec Tanking Polymer is a sophisticated cementitious formulation designed for use in below and above ground waterproofing situations.

The product is made up of many components, which give high water resistance, flexibility, salt resistance, good adhesion and set control in a form that only requires water for mixing.


M3 FLOODTEC
TANKING POLYMER
Tanking Polymer is the ideal solution for below ground waterproofing and vertical DPC membrane for above ground applications.
Flood Aged Tanking Polymer is a cementitious waterproofing polymer containing an acrylic polymer which imparts increased strength, bonding and abrasion resistance.
SUBSTRATE
MIXING
APPLICATION

Introduction

High Water Resistance

This is achieved by using a highly hydrophobic dispersible polymer that reacts with the other components to give water resistance and flexibility. The grading of the powders in the slurry means that a very dense coating is produced. Particle sizes as low as 0.5 micron ensure that every potential air space is filled with an impervious sphere of water and chemical resistant material.

Flexibility

The polymer used is flexible and to improve this performance special fibres are added which allow a much higher level of flexibility.

Salt Resistance

The presence of salts in below ground situations can cause expansion when drying and lead to de-lamination at worst and efflorescence. Two components contained in the product actually react with these soluble salts turning them into solids that do not exhibit efflorescent or hygroscopic effects.

Good Adhesion

Adhesion comes from the polymer and the presence of special cements, which bind the slurry cohesively and give good adhesion to masonry.

Set Control

This is achieved by using rapid setting cements together with set accelerators. This ensures that even in areas where there may be water movement the slurry sets quickly whilst allowing a reasonable period for application. Where running water is experienced however, water seal must be used to control water flow whilst the slurry is curing. M3Floodtec Tanking Polymer is manufactured to have to a high level of performance in any situation where lateral or penetrating dampness is found. It has been carefully formulated to ensure that it is not affected by the problems normally associated with water movement such as salt damage and movement.

Uses

M3 Floodtec Tanking Polymer is used as a waterproofing membrane, which may be applied by brush or spray. Where external ground level is above internal floor level it is usually necessary to provide a barrier to penetrating moisture in conjunction with an injected DPC.

In such circumstances M3 Floodtec Tanking Polymer may be applied directly onto the brickwork before DPC injection takes place. In cellars and other areas of high hydrostatic pressure and where there could be sulphate salts present, it is advisable to use a sulphate resistant (tight) backing coat before applying M3 Floodtec Tanking Polymer.

Description

Areas of use include the following:

- Cellars / Basements
- Tanks & Ducts
- Underground Car Parks
- Swimming Pools
- Portable Water Tank
- Bund Walls
- Foundation Slabs
- Silage Pits
- Party Walls
- As a vertical DPC in stone walls or walls over 250mm
- Fishtanks (black slurry available)
- List Shafts

M3 Floodtec Tanking Polymer is a blend of Portland cements, quality graded aggregates and chemical modifiers, which provide a waterproof coating system. The standard product is supplied in grey, other colours can be made on request. It also contains an acrylic polymer to assist bonding therefore reducing the use of SBR directly into the slurry. M3Floodtec Tanking Polymer is not sulphate resistant.

Advantages:

- **Excellent Adhesion**
  Special mix design produces
- **Durable Protection**
  Waterproof coating has long life characteristics
- **Water Based**
  Safe to apply on damp surfaces
- **Easy Application**
  May be applied by brush or spray

Application

Preparation

All contact surfaces must be clean and sound. Remove all loose material, laitance, dust and any previous coating. Tap off water pressure where necessary and cut out a 20mm x 20mm fillet at floor and wall joint (see page 4 individual specification). Repair any existing cracks and fractures with M3Floodtec Rapid Cement.

Services

Seal around all services and pipes with **M3 Floodtec PRO-BOND 2000 MS POLYMER PRIMING.**

Under normal applications no priming is required; however,r you should refer to the individual specification that may be provided by your Technical Representative. On dry surfaces the background should be dampened to assist the coating in fully wetting out.

Mixing

The water requirement to produce the coating is 7.5 to 8.5 litres of water per 25 kg of dry material. Pour the required quantity of water into suitable mixing vessel. Slowly add the powder to the water whilst continuously mixing. Mechanical mixing is recommended using a slow speed high torque drill with a plastering paddle. Mixing should be continued for three minutes after all the powder has been added to the mixing water to obtain a "creamy" consistency.

Coating

M3 Floodtec tanking polymer is applied in two coats, the first coat in a horizontal direction down to fillet level. Apply a second coat at right angles to the first as this will ensure complete coverage of the substrate. Second coat can be applied before the first is dry providing the first does not drag. In some cases a tight coat of render made up of 3:1 sand cement mix, using a sulphate resistant cement and SBR mixed at 2:1 with water as the gauging water may be required, refer to your individual specification or our technical department if you are unsure.

NB. Do not re-temper stiffened material. Tanking Polymer should not be applied in frost conditions or to frost filled surfaces or when temperature is 5 deg C and falling.

Curing

In warm or windy conditions mist spraying may be used to compensate for moisture loss. In tanking applications a through flow of air is required to prevent condensation. M3 Floodtec Tanking Polymer may be rendered after 24 hours and will become fully effective after 8 days. Render coat should contain SBR to assist bonding and floor coatings should be screeded or sealed with an abrasion resistant coating. Protect from frost, direct sunlight, and drying winds for 24 hours.

Precautions

Heath & Safety

M3 Floodtec Tanking Polymer is alkaline when mixed with water and should not come into contact with skin or eyes. Avoid inhalation of dust during mixing and wear safety glasses, dust mask and cloves. If skin contact occurs wash with clean water. Should eye contact occur rinse immediately with plenty of clean water and seek medical advice. For full health and safety data refer to Product Safety Data Sheet.

Fire

Tanking slurry is not a fire risk.

Coverage

- Water addition: 7.9 ltr per 25kg unit
- The coverage will depend on the substrate surface.
- Course surface: 2kg to 3kg per square metre per coat.
- Smooth surface: 2kg to 2.5kg per square metre per coat.
- Initial Set: 30 minutes

Storage

M3 Floodtec Tanking Polymer will have a shelf life of six months in bags.
Store in dry conditions at temperature above 5-degree C.

Tanking & SBR Usage Chart

SQR MTR	10	15	20	30	35	40	45	50	55	60	65	70
ABOVE GROUND KG	20	30	40	60	70	80	90	100	110	120	130	140
SBR 5L	1	1	1	2	2	2	3	3	3	4	4	4
BELOW GROUND KG	40	60	80	120	140	160	180	200	220	240	260	280
SBR 5L PRIMER POLYMER	2	2	2	4	4	4	5	5	5	6	6	6
SBR 5L TIGHT COAT	4	4	4	6	6	6	8	8	8	10	10	10

Floor & Wall Joint Detail

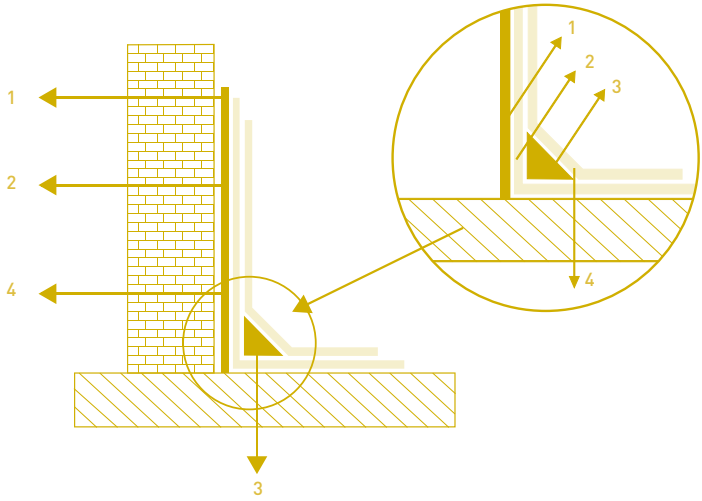

Fig 1

1. Surface levelled with 3:1 sulphate resistant Portland cement: sand mix, incorporating SBR 2:1 water as gauging.
2. Vertical tanking polymer taken over floor.
3. 20mm fillet 3:1 sand cement. SBR neat as gauging.
4. Second coat of M3Floodtec Tanking Polymer taken over floor.

Tanking & SBR Usage Chart

Anything that disrupts the continuity of M3Floodtec Tanking Polymer will give rise to a weakness in the system. Wherever possible fixing of items to tanked walls should be avoided. Where fixing have to be made, provisions should be made in advance by drilling oversized holes and plugging with rapid set, then inserting plastic plugs whilst the rapid set is still soft, or drill the correct size hole after it has set. Skirting and Dado rails should be glued using Adhesive. See Fig 2

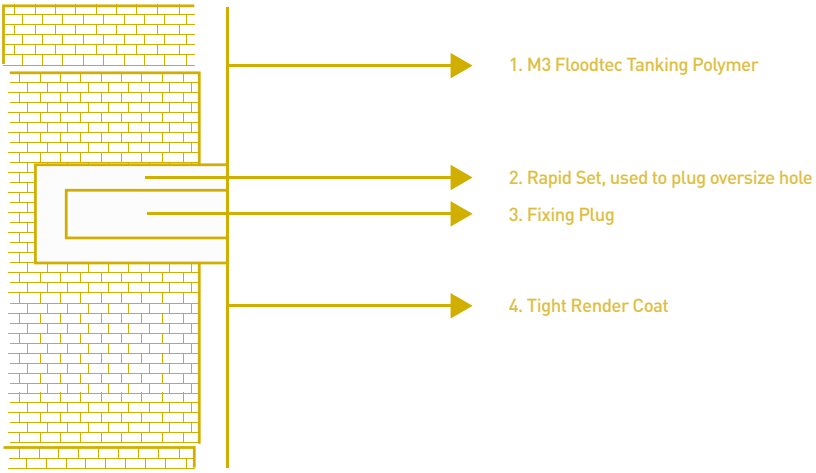

Fig 2

THE INFORMATION GIVEN IN THIS DOCUMENT DOES NOT CONSTITUTE A SPECIFICATION

Notes

M3 Floodtec reserve the right to improve specifications from time to time without prior notice.
All information is given in good faith and to the best of our knowledge is true and accurate.
Customers should satisfy themselves that the products are suitable for the intended purpose.

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