



MANORTEQ

Completing the Waterproofing

ReadyProof

TECHNICAL DATA SHEET

Manorteq ReadyProof is a pre-bagged, waterproof, concrete mix that contains Xypex Technology Inside, and has a strength class of C30/37.

Description

Manorteq ReadyProof is a single-component concrete mix containing crystalline technology. It meets the requirements of class R4 according to EN 1504-3.

Manorteq ReadyProof is used where only small volumes are required. ReadyProof is waterproof and resistant to a variety of mediums to include water, oil-based products and organic solvents. The product has excellent waterproofing capabilities, provided by the Xypex Technology Inside.

Benefits include:

- Designed for concrete repairs (Principles 3, 4 and 7. Methods 3.1, 3.2, 3.3, 4.4, 7.1 and 7.2 according to EN 1504-3)
- Includes Xypex Technology Inside
- Waterproof; and tested up to 5 bar / 50 m hydrostatic head (limit of test)
- Highly chemical resistant
- Good adhesion to the substrate
- Low volume changes
- Fast strength gain
- Suitable for applications at a thickness of 15 – 50 mm. Greater thicknesses require formwork
- Freeze-thaw resistant





Use

Manorteq ReadyProof is intended specifically for making waterproof concrete in small batches. It can be used for repairing concrete structures, making them impermeable to water, oil-based products, solvents etc.

Technical Data

Requirements / Results according to EN 1504-3 class R4

	Testing Method	R4 Requirements	Results
Compressive Strength (MPa)	EN 12190	≥ 45	> 45
Content of Chloride Ions (%)	EN 1015-7	< 0.05	< 0.01
Adhesion Bond (MPa)	EN 1542	≥ 2.0	> 2.0
Carbonation resistance	EN 13295	$d_k \leq$ control concrete	Complies
Thermal compatibility - dry cycles- adhesion to base (MPa)	EN 13687	Adhesion after test ≥ 2.0	> 2.0
Elasticity Modulus in Compression (GPa)	EN 13412	≥ 20	> 20
Capillary Absorption ($\text{kg.m}^{-2}.\text{h}^{-0.5}$)	EN 13057	≤ 0.5	

Physical and Mechanical Properties

Colour	Non-standard grey		
Tensile bending strength (MPa)	7 days	> 5.5	
	28 days	> 7.5	
Compressive Strength (MPa)	7 days	> 28.0	
	28 days	> 45.0	
Frost resistance		T100	





Installation

Substrate

1. Any dust and loose particles shall be removed from the substrate before application. The concrete surface must not be contaminated by substances which can negatively affect adhesion of the mortar to the substrate (e.g. oil).
2. Corroded reinforcement should be repaired where necessary to the satisfaction of the resident engineer.
3. Tensile strength of concrete surface layers must be at least 1.5 MPa.
4. Before the application of Manorteq ReadyProof, wetting of the concrete should be thorough and repeatedly undertaken for at least 120 mins.

Preparation

1. Manorteq ReadyProof is prepared by mixing with clean water. For mixing it is necessary to use a low-speed mixer with forced circulation. In the case of preparing small amounts Manorteq ReadyProof can be mixed with a propeller mixer driven by an appropriate electric drill.
2. Add 3.25 - 3.75 litres of clean water per 1 No. (25 kg) bag of product. The open time of the mix is typically 50 - 60 minutes at 20 °C. Neither the temperature of the substrate, nor the temperature of the ambient air shall be below +5 °C or above +35 °C.

Application

1. Manorteq ReadyProof can be applied using standard concrete practices, to include appropriate compaction and curing. Where more than one layer of the product is being placed, the first layer needs to be applied in such a way as to ensure there are no voids created (e.g. behind the reinforcement etc.).
2. It is important to spread the mortar into the pores and uneven spaces. This can be done with a flat paint brush (with short hair), or with a toothed trowel.
3. Proper adhesion of the material to the substrate in the first application stage is directly connected to good quality adhesion in the final state.
4. With localised areas it is necessary to pay detailed attention to the edges of areas previously repaired. It is imperative to ensure product is sufficiently compacted, eliminating any entrapped air pockets or other irregularities.
5. The repair should always commence from the deepest part of the defective area, layering the product up in such a way that when the final layer is applied, it is a continuous, homogenous layer over the entire area being repaired.
6. After the initial set, standard practices for finishing (e.g. smoothing with a wooden trowel, steel trowel or polystyrene finisher) can be used.
7. Wet surface finishing is not allowed.





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8. Attention should be taken to avoid direct exposure to the sun, wind and other factors which accelerate evaporation and have a detrimental effect. Proper curing must be undertaken to prevent early drying, and the subsequent issues associated. Curing agents can be used to aid this process. Repaired surfaces must be properly cured immediately after completion. Curing shall be carried out for at least 3 days after casting. Optimal treatment is by covering the surface with permanently moistened geotextiles.

Consumption

Specific consumption of dry mortar is 1.70 - 1.80 kg/m²/1 mm of layer thickness. In spray applications, it is necessary to account for approximately 10 to 12% loss through waste.

Packaging

The product is supplied in 25 kg PE lined paper bags.

Storage

Manorteq cementitious products must be stored dry at a minimum temperature of 7°C. The product should be used within its shelf life for optimum technical performance, which is 6 months from date of manufacture when stored under proper conditions.

Handling and Health & Safety

Manorteq cementitious products are alkaline. As a cementitious powder or mixture, Manorteq ReadyProof may cause significant skin and eye irritation. Directions for treating these problems are clearly detailed on all Manorteq cementitious packaging. The Manufacturer also maintains comprehensive and up-to-date Safety Data Sheets on all its products. Each sheet contains health and safety information for the protection of workers and customers. The Manufacturer recommends you contact Manorteq Ltd or your local Manorteq representative to obtain the latest copies of Safety Data Sheets which must be read prior to product storage or use.

Warranty

Manorteq Limited (Company No. 13817118) warrants to the purchaser that the products supplied by it shall be free from material defect. Should any of the products be proven defective, the liability to Manorteq Limited shall be limited to (at the choice of Manorteq Limited) either replacement of the proven defective products ex-factory, or refund of the NETT ex-factory purchase price at the date the proven defective products were supplied. Manorteq Limited will not be liable or responsible, to such an extent as permitted by law, for any consequential or direct damages, compensation, costs, expenses, losses or other liabilities that may occur as a result of the defective products. Manorteq Limited makes no warranty as to the merchantability or fitness for a particular purpose and the terms of this warranty are in lieu of all other warranties expressed or implied by law.

Please note: This Technical Data Sheet is for general guidance only. It does not constitute as a detailed guide for a specific application. Due to the unique circumstances of every site, each installation must be assessed on a project-by-project basis as there may be many variables to consider. Independent professional advice should be sought on each installation. The information contained within this Technical Data Sheet is to the best of Manorteq Limited's knowledge and belief, accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made to its accuracy, reliability or completeness.

