MANORTEQ
Completing the Waterproofing

AquaRend S-Fine

TECHNICAL DATA SHEET

Manorteq AquaRend S-Fine is a single-component, dry, fine grain mortar designed specifically for fine finishing of repaired concrete, and for concrete that has minor surface deterioration. It is also used to provide a super fine finish over the Manorteq AquaRend Thix or Flow ranges.

The product is a super fine finishing coat, with Xypex Technology Inside, allowing perfect integration with either a Xypex repair or a super smooth finish on other AquaRend products.

Description

Manorteq AquaRend S-Fine is for applications where a super fine finish layer is required (2 mm – 4 mm). Manorteq AquaRend S-Fine, when used as part of the Manorteq AquaRend system, creates a barrier layer on the surface of a structure, which is impermeable to liquids including but not limited to water, oil-based products and organic solvents.

Manorteq AquaRend S-Fine, is classified as an R2 mortar with a low modulus of elasticity in accordance with EN 1504-3.

Manorteq AquaRend S-Fine, when used as a stand-alone product, does not have sufficient thickness to be used in conjunction with Manorteq reinforcement. If an application requires using Manorteq reinforcement, and also requires a Manorteq AquaRend S-Fine finish, then Manorteq AquaRend Thix Regular or Manorteq AquaRend Thix Fine must be used at sufficient thickness to embed the reinforcement correctly.

Benefits include:

- Repair mortar classified as R2 (EN 1504-3)
- Good adhesion to base with excellent mechanical properties
- Limited shrinkage
- Includes Xypex Technology Inside
- Limits water penetration
- Frost resistant

Manorteq Ltd.
Registered Office: Unit 7, Britannia Business Centre,
Britannia Way, Malvern, Worcestershire, WR14 1GZ, UK

info@manorteq.com

www.manorteq.com

Use

Manorteq AquaRend S-Fine is a single-component, dry, fine grain mortar designed specifically for fine finishing of repaired concrete, and for concrete that has minor surface deterioration. It is also used to provide a super fine finish over the Manorteq AquaRend Thix and Flow ranges.

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Waterproofing Capability

* Whilst a perfect application at these thicknesses will provide a waterproof layer, there is however a higher probability of imperfections in the application which would compromise the integrity of the waterproofing.

** Waterproof, subject to correct application. All Manorteq products should be applied in strict accordance with the installation procedures.

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Technical Data

Requirements/Results according to EN 1504-3 class R2

	Testing Method	Requirements	Results
Cohesion (MPa)	EN 12190	> 15	> 20
Content of chloride ions (%)	EN 1015-7	< 0.05	< 0.05
Adhesion bond (MPa)	EN 1542	≥ 0.8	≥ 1.0
Thermal compatibility, dry cycles – adhesion to base (MPa)	EN 13687-4	Adhesion after test ≥ 0.8	≥ 0.9
Capillary absorption ($kg.m^{-2}.h^{-0.5}$)	EN 13057	≤ 0.5	≤ 0.35

Physical and Mechanical Properties

Colour		Non-standard grey
Tensile bending strength (MPa)	7 days	> 3.0
	28 days	> 5
Compressive strength (MPa)	7 days	> 16
	28 days	> 20
Frost resistance		T100 (Freeze/Thaw cycles with water)

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Installation

Substrate

1. Remove all damaged, loose, weather-worn concrete. 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 the adhesion of the mortar to the substrate (e.g. oil or other products).
2. Before the application of Manorteq AquaRend S-Fine, ensure the substrate surface is suitable to receive the mortar and create a suitable cohesive bond.
3. Before the application of Manorteq AquaRend S-Fine, the substrate must be wetted, ideally to a 'saturated surface dry' condition. Rinsing with pressurised clean water before application is recommended to remove any dust from the application surface.

Preparation

1. Manorteq AquaRend S-Fine is prepared by mixing with clean water. It is necessary to thoroughly mix with enough speed/energy to comprehensively combine the material, but care should be taken not to incorporate air into the mix. Speed/energy should be reduced as material becomes more fluid.
2. Recommended mixing ratio is 5.00 - 5.75 litres* per 1 No. (25 kg) bag.
3. Initially mix the the dry mix into the minimum water for approximately several minutes, until it becomes fluid. Mix at slow speeds, too much speed will add unwanted air into the mix. If this is not the appropriate consistency, add water in small increments, mix again and assess. Add up to the maximum allowable, ensuring to complete the full mixing, resting and re-mixing process.
4. Working time of the product is typically 50 - 60 minutes at 20 °C.
5. The temperature of ambient air shall not be below, nor expect to be, in the following 24 hours, +3°C or be, or expect to be, above +35 °C.

   Never apply to frozen substrates.

* Consideration should always be given to the amount of water used. As a waterproof mortar there is always a balance between the level required. Less water will give greater waterproofing, but more water is typically required for application purposes.

Application

1. Manorteq AquaRend S-Fine can be applied manually. Layers must not exceed 4 mm thickness.
2. Proper adhesion of the material to the substrate in the application stages is of fundamental importance.
3. After initial set of the last layer, a dry polyurethane finishing tool is used for the smoothing of the surface.
4. If being used as a cap coat over a coating of Xypex Concentrate slurry, for best bond, application should be made at approximately 3 hours or after 28 days.

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Curing

Attention should be taken to avoid direct exposure to the sun, wind and other factors which accelerate evaporation and have a detrimental effect. It is desirable to properly moisten the repaired areas several times a day for a minimum of 3 days following the repair or Manorteq Curing Agent can be used to aid this process.

Consumption

Specific consumption of dry mortar is 1.60 - 1.70 kg/m^2/1 mm of layer thickness.

Packaging

The product is supplied in 25 kg bags.

Storage

Manorteq cementitious products must be protected during transportation and storage against moisture. The product should be used within its shelf life for optimum technical performance, which is 12 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 AquaRend S-Fine 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.

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