

Roundtower Marine P50

A dry ready mixed natural cement mortar for marine construction.



Product Description

Factory blended mortar using graded kiln dried sand and VICAT Prompt Natural Cement.

Mix Ratio

1:1 - Prompt: Sand by volume.

Binder

Prompt Natural Cement.

Aggregate

5mm down washed, sharp flint sand. Optionally available with a 2.5mm sharp flint sand.

Usage

Marine P50 is a fast setting pointing and building mortar for marine applications, this is the product within the range with the second highest compressive strength, joint lowest water absorption and good chemical resistance.

Suitable for applications in construction where the binder strength is appropriate for the host background or surface.

Do not use this product below 5°C, do not use this product if freezing conditions are predicted within the following few weeks (including wind chill). Do not use this product in temperatures above 30°C.

Coverage

After mixing, a 25kg bag will produce approximately 14.5 litres of mortar.

For pointing applications, a 25kg bag when mixed will point approximately 1.5m² at a depth of 10mm, however, joint size can significantly vary consumption so on-site trials are the best method for determination of quantity required.

Colour and Texture

All of our standard Marine range is entirely natural in colour. No pigments or colourants are added. How the mortar is cured after placement can affect the final colour achieved; protection from rapid drying leads to a lighter buff colour where fast drying leads to a rust like ochre colour. Because of this change in colour due to the curing method we cannot mortar match this product against other materials.

Marine P50 is made with a 5mm down tan flint sand, however the colour of the mortar is an iron/tan colour due to the natural colour of the Prompt.

Technical Performance

Please note these figures are given as mean measurements on wet cured mortars, and not as guaranteed minimums.

Performance Metric	Average Test Result
24H Flexural Strength	2.7 N/mm ²
24H Compressive Strength	12.0 N/mm ²
7D Flexural Strength	3.2 N/mm ²
7D Compressive Strength	14.56 N/mm ²
28D Flexural Strength	4.5 N/mm ²
28D Compressive Strength	24.8 N/mm ²
28D Water Absorption	0.5 Kg/(m ² ·min ^{0.5})
91D Flexural Strength	5.8 N/mm ²
91D Compressive Strength	62.8 N/mm ²

These results were achieved with a w/c ratio of 0.42.

Preparation

In general, this will be determined by the purpose and application of the mortar.

Dense impervious backgrounds/materials are unlikely to be very absorbent and require little to no dampening, whereas more absorbent backgrounds/materials require adequate dampening in order to prevent rapid drying.

Ensure surfaces are clean and free of dust and other debris. For all other works, ensure the background is adequately dampened to promote adhesion/bond with the host surface.

Mixing

A 25kg bag of mortar will require 3.8 to 4.5 litres of clean drinkable water. Always avoid making the mortar too wet, as this can promote shrinkage issues.

For drum type mixers, it is essential not to overfill the mixer.

As a dry mixed material, it is possible that some settlement or separation may occur in the bag during transit; when mixing part bags, it is especially important that the dry contents are thoroughly blended prior to mixing with water.

Mixing with a Belle Mixer: First add 80% water of the total water into the mixer, followed by the Marine Mortar and turn the mixer on. Allow the mortar to mix until the water is thoroughly distributed, then add additional water to achieve desired consistency. Mix as quickly as possible to bring to consistency, after reaching consistency mix for a further 30 seconds and turn out for use.

Mixing with a Plasterers Whisk: First, add 90-95% of the required water into the mixing tub, turn the mixer on at a medium to high speed and add the dry mortar gradually.



Roundtower Lime

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Once all of the mortar has been added, add the final water to bring to consistency and mix for a further 15 seconds.

Other Mix Methods: We accept that it is generally site practice to add the water to the mortar. Providing the mortar is well mixed and not too wet, this method will be sufficient.

Open time with this mortar is variable depending on the temperature, at 20°C the open time will be approximately 30-40 minutes. Please refer to the Marine Mortar mixing guidance sheet for further details.

Usage and Finishing

Areas of Use: External mortar for use in freshwater and saltwater environments; fast setting for use in tidal environments. This blend is specifically good for resistance to various marine pollutants, acids and alkalis.

Pointing: Removal of the previous mortar should be done in such a way as to give a good space and key for the fresh mortar to be applied. The depth should be no less than 10mm, and should be raked out to give angled corners in the back of the joint. Any dust and residual old mortar should be removed by way of a stiff bristled brush or by vacuum cleaner if a suitable industrial one with HEPA filters is available.

After cleaning out the joint it must be sufficiently dampened down to control suction, high suction backgrounds may need multiple passes to wet out sufficiently, and be prepared to keep wetting the wall as you work if particularly high suction or in hot/windy weather.

Push the mortar into the joint with an appropriately sized and shaped tool, the mortar should be pressed into the back of the joint as tightly as possible. As the mortar starts to set it should be finished in such a way as to smooth the surface and help to close up any gaps between the edges of the mortar and the masonry units.

Building: There are multiple building styles and methods so covering them in a short document like this is not feasible. A mortar like this one is often considered too coarse for laying blocks or bricks with a 10mm joint but is fine for larger jointed stonework. If the stone is particularly high suction and/or the weather is quite hot then it may be advisable to dip the stone in water before laying so that the mortar doesn't dry back too quickly and allows enough time for placement and adjustment.

At the end of the day, it is recommended to cover over the fresh work with damp hessian sheeting to keep the fresh mortar damp and aid in its early strength development. The hessian should be set up with an overhang in such a way that it doesn't allow it to 'slap' against the wall which can ruin any finish that has been applied and smear lime onto the masonry.

This can be achieved by fixing the hessian to a scaffold or by having an overhanging board placed on top of the wall with something weighing the bottom of the hessian on the floor below. Extra assistance such as protection from sun and rain for curing is not appropriate for works in tidal areas unless the work is to be left exposed for multiple hours before the tide comes in.

Washout in Tidal Areas

This product will be washout resistant from around one minute after the point it starts to set for most gentle to moderate waves, for stronger more aggressive environments or rapid moving water like streams at least five minutes from the point of setting should be allowed for to prevent washout or damage to the mortar joint face.

Packaging

This product is supplied in 25kg polythene lined paper bags, palletised for shipping and handling. The packaging is a mixed material and should be recycled accordingly.

Storage

This product should be stored in dry conditions, in unopened bags and clear from the ground. Always protect bags from water and damp. Reseal part bags after opening if unused product is present.

Use within 6 to 8 weeks of the manufacturing date (provided on each bag).

Health and Safety

RISK PHRASES: R36 / R37 / R38 / R43

- Avoid contact with skin and eyes.
- Contact with wet mortar may cause irritation, dermatitis and/or burns.
- Contact between lime powder and body fluid (sweat, eye fluid etc.) may cause skin burns and respiratory irritation, dermatitis or burns.

SAFETY PHRASES: S2 / S24/25 / S26 / S37

- Avoid eye and skin contact by wearing suitable eye protection, protective clothing and gloves.
- Avoid breathing dust.
- Keep out of reach of children.
- On contact with skin and/or eyes, rinse immediately with clean water and seek medical attention.

Declaration

Roundtower masonry mortars are manufactured and tested to the requirements of BS EN 998-2: 2016.

This product will contain no Portland Cement whatsoever.

Document Control

Datasheet version 1.5, issued January 2026. Any more modern versions will supersede this datasheet, with no exclusions.