

TECHNICAL DATA SHEET BEACHCRETE



PRODUCT DESCRIPTION

Easy Mix Beachcrete is a premium, pre-blended mix of dry aggregate, graded sands and cement.

It is a specially designed concrete mix designed to be exposed to reveal a smooth, textured aggregate surface finish that is comfortable to walk on with bare feet.

Easy Mix Beachcrete can be used as a conventional concrete mix for paths and slabs, as a special topping mix for architectural finishes, or to manufacture landscape components such as pavers or garden edging.

PRODUCT PACKAGING

Easy Mix Beachcrete is available in 20kg bags.

COVERAGE

1 x 20kg bag = 0.0096m³
104 x 20kg bags = 1.0m³

APPLICATION INSTRUCTIONS

- 1 Make sure your project is properly laid out with all the necessary tools at hand.
To ensure you achieve the finish you expect, the following equipment is recommended.
 - a) A powered, drum type concrete mixer (electric or petrol) is required. This will ensure that all ingredients are well mixed together.
 - b) A jug with graduations to measure out the water to be added with each bag of Easy Mix Beachcrete is also recommended. This will ensure that the mix is workable without being too wet or dry.
 - c) A concrete screed for levelling the surface.
 - d) A concrete float to smooth the concrete surface after screeding.
 - e) A concrete edging tool if rounded edges are required.
 - f) A concrete grooving tool (15mm) for jointing long sections such as paths and driveways.
 - g) A large dense foam roller (approximately 230mm), and extension handle for the roller for larger jobs.
 - h) Small dense foam roller (approximately 75mm – 100mm) for exposing edges.
 - i) Paint roller tray (deep, 450mm recommended).
 - j) Hydrochloric (HCl) acid 20% (1 part hydrochloric acid to 4 parts water(1:4)).

Mixing – Powered Concrete Mixer

- 1 Pour required amount of Easy Mix Beachcrete into the concrete mixer drum.
- 2 Measure the amount of water you will need. One 20kg bag requires 1.6-1.8 litres of water depending on how workable the concrete is needed.
- 3 Add the required amount of water to the mixer gradually and allow water to be incorporated into Beachcrete. Mix for 3 minutes after adding water. Excess water can ruin good concrete. Do not add water after the concrete has been mixed, as this reduces the strength of the concrete and may affect the final colour consistency.

Note: The amount of Beachcrete prepared should not exceed the resourcing to mix, place and expose the product within a 1 hour 45 minute time frame.

Mixing – Wheel Barrow

- 1 Wet the inside surface of the wheel barrow with a damp rag.
- 2 Place either one or two bags of Easy Mix Beachcrete into the wheel barrow.
- 3 Using the shovel make a small depression in the centre of the dry mix in the wheel barrow.
4. Add the required amount of water (1.7 litres/bag).
- 5 Mix the material by placing the shovel under the mix and turning it over into the centre, and into a heap, followed by a chopping action using the shovel to allow the water to spread throughout the mix evenly.

Note: Indicative mixing time is 4 minutes for 1 bag and 7 minutes for a 2 bag mix in order to achieve a uniform consistency.

Mixing – Bucket

- 1 Add half the recommended water (850ml) to the bucket prior to adding any Easy Mix Beachcrete.
- 2 Add about half a bag of Easy Mix Beachcrete dry mix to the bucket and mix thoroughly with a shovel until you achieve a consistent mix.
- 3 Add the rest of the bag on top of your wet mix.
- 4 Add the remaining water (approximately 850ml) to the bucket.
- 5 Mix thoroughly until you achieve a good consistent mix and there is no free water visible.

Note: Each half bag should take about 3 minutes to mix thoroughly.

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Placing

- 1 Prepare formwork by using plastic as a base or dampening the ground to prevent rapid moisture loss.
- 2 Using a straight-edge screed/board across the top of the formwork, 'screed' the Beachcrete to the desired level. Work the screed/board across the slab from one end to the other in a sawing motion to bring the slab to its finished level. If too much Beachcrete builds up in front of the screed, move this away with a shovel.
- 3 After levelling the Beachcrete with a screed, "float" the surface with a steel trowel. This will further smooth the surface.
- 4 Using rounding or grooving tools, install any edge bevels or joints into the Beachcrete as appropriate.

Finishing

Trowel the Beachcrete every 20 to 30 minutes for the first 1 hour and 45 minutes after first mixing or until the surface is ready for exposure. This will help to densify the Beachcrete surface.

Exposing the "Beachcrete"

- 1 Depending on ambient temperature and depth of slab the Beachcrete will generally be ready for exposure at approximately 1 hour 45 minutes from the time water was added to the mix.
Note: To determine the correct time for exposure, use your index finger to firmly press into the slab. The Beachcrete will be ready for exposure when the surface of the slab does not indent but leaves a slight fingerprint mark on the surface. Also rub the area which you have just pressed with your finger and you should notice a thin layer of gritty sand and cement paste being removed from the surface.
- 2 The edges of the slab should be exposed first using a small dense foam roller by saturating the foam roller with water and then squeezing about 50% of the water out of the roller.
- 3 Proceed with an initial roll of the full length of all edges around the slab whilst applying steady pressure to the roller.
- 4 Rinse the roller with clean water every few minutes or when excess sediment and cement paste build-up is noticed on the roller.
Note: Do not overload the roller with water when exposing the edges as this can cause the edges to crumble and crack.
- 5 Once you have done the initial roll proceed to roll the edges again to refine the level of exposure. You may have to repeat this step until the desired exposure is achieved.

- 6 To determine the correct time for exposing the centre of the slab proceed to test the surface of the unexposed area using your index finger as described in step 1 for Exposing the "Beachcrete". Depending on the conditions on the day and the depth of the slab, the exposure for the centre of the slab will generally be around 2 hours to 2 hours and 30 minutes after mixing.
- 7 Using a large dense foam paint roller, proceed to saturate the roller with clean water and then squeeze approximately 50% of the water out of the roller.
- 8 Roll the unexposed surface of the slab using your large dense foam roller whilst applying steady pressure.
- 9 To ensure a nice uniform exposure is achieved, change the direction of the rolling so that it is at 90 degrees to your initial rolling pass.
- 10 Continue to roll the surface until the desired exposure is achieved ensuring to rinse the roller with clean water every few minutes or when excess sediment and cement paste build-up is noticed on the roller.
- 11 Once the desired exposure is achieved rinse the roller with water and then squeeze the water out so that the foam roller is as dry as possible. Proceed to roll the surface of the slab from one edge to the next whilst applying even pressure. This will remove any excess water from the surface of the slab.
- 12 Allow the Beachcrete to cure for 24 hours.
- 13 After 24 hours curing time using a broom sweep the slab to remove any dust and loose sediment from the surface.
- 14 Acid wash the surface of the Beachcrete slab by pouring a hydrochloric acid mixture onto the slab and then evenly spread over the surface of the slab using a roller with extension handle or a broom. The acid mixture should be 20% or 1 part hydrochloric acid (HCl) to 4 parts of water.
NOTE: When performing this step there are a few safety points to remember. Ensure you are wearing the correct personal protective equipment (PPE) such as gloves and protective eyewear. You should perform this task in a well ventilated area. If ventilation is inadequate then a respirator mask with a vapour cartridge should be worn to avoid breathing in any acid fumes. When mixing acid and water always pour the acid into the water and never water to acid.
- 15 Allow the acid to sit on the surface of the slab for 5 minutes and then wash off with plenty of clean water.

Curing

Cure the concrete by keeping it moist for seven days. To prevent the Beachcrete slab from moisture loss you can use plastic sheets to cover the slab.

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Protection

After 7 days apply a concrete sealer according to manufacturers specifications to protect the surface from stains.

Clean Up

When cleaning all surrounding areas and surfaces with water ensure no waste or contaminated water ends up in drains or waterways.

Depth

Recommended minimum depth	
Pavers	50mm
Pathway (pedestrian traffic only)	75mm
Driveway (vehicular traffic)	100mm

Technical Performance

AS3648-1993 Specification and Methods of Test for Packaged Concrete Mixes:

Criteria	AS3648 Limits	Average Results
Water added per 20kg bag	As per manufacturer's instruction	1.6-1.8 litres
Consistency (Slump)	90 – 110 mm	110mm
Plastic Density, kg/m ³	Not less 2100kg/m ³	2300kg/m ³
Volume Yield, m ³	Min 95% of specified	0.0095
Retained (on 19mm sieve)	Not more than 5%	Nil
Retained (on 4.75mm sieve)	NA Fine Aggregate Concrete	6%

Compressive Strength – tested as per AS1012.2 : 1994

3 days	14MPa
7 days	33MPa
28 days	45 MPa

PLEASE NOTE

The information given in this data sheet is based on our current knowledge of the product when properly stored, handled and applied. We cannot guarantee that the product will be suitable, effective or safe when used for any purpose other than its stated uses.

To the extent that it is lawful, we exclude warranties implied by law and limit our liability to the cost of replacing the product. We accept no responsibility for loss or injury caused by improper use, incompetent preparation, inexperienced or negligent application, or ordinary wear and tear.

Service or advice given by our staff should not amount to responsibility for the project - since the owner, or their contractor (and not River Sands), is responsible for procedures relating to the application of the product.

Storage

Easy Mix Beachcrete will keep for up to six months if kept in a dry store, up off the ground and providing the bags remain sealed. High temperature and high humidity conditions may reduce the storage life of the product.

Health and Safety

Easy Mix Beachcrete contains cement powders which can be harmful to the skin. During use, avoid inhalation of dust and contact with the skin and eyes. Wear suitable clothing, gloves, eye protection and respiratory protective equipment.

If contact with the skin occurs, thoroughly clean the area with plenty of fresh water and soap.

In case of contact with the eyes rinse with plenty of fresh water and seek medical advice.

If swallowed, seek medical attention immediately – **Do not** induce vomiting.

Safety Data Sheets are available by phoning 1800 077 744 or at www.easymixsales.com.au



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