Ronaset Concrete

Rapid strength gain concrete for floor toppings and repair

Description
Ronaset Concrete is supplied as a pre-packed, two component, ready to use mortar. It is supplied complete with all the dry components in a bag and a bottle of gauging liquid.

Ronaset Concrete's rapid strength gain is used for laying new and repairing existing floors and bedding building components.

Surfaces formed using Ronaset Concrete can be trafficked as early as 18 - 24 hours after mixing. The speed of Ronaset Concrete makes it ideal for application in areas where surfaces must be formed or reinstated or components bedded and opened to traffic with minimum disruption and delay.

As well as offering rapid strength gain Ronaset Concrete is strong and durable and capable of achieving 28 day strengths of conventional mortar within hours. Its formulation also allows it to be applied at minimum temperatures of 0°C facilitating external work during cold weather and in cold stores. .

Applications for Ronaset Concrete include:
- high strength industrial toppings
- high abrasion resistant floors
- thick section patch repairs in high demand/constant access areas

Features
- **two component material for convenience**
- **may be installed in temperatures down to 0ºC**
- **rapid strength gain**
- **high ultimate strengths**
- **suitable in very heavy duty industrial premises**
- **rapid drying**
- **application from 25mm to 100mm**
- **excellent abrasion resistance**
- **water and frost resistant**
- **internal and external application**

Packaging
25kg total pack size (dry components and gauging liquid)

Coverage

Coverage per pack	0.42m² @ 25mm 0.21m² @ 50mm 0.14m² @ 75mm 0.10m² @ 100mm
Yield per pack	10.5 litres
Pack required per m³	95 packs approximately
Minimum thickness	25mm
Maximum thickness	100mm per layer

Physical Properties
Note that the following data is based on laboratory tests conducted at 20°C. Cubes are 100mm and air cured. Results shown are typical laboratory strengths achieved by casting and curing cubes in ideal working conditions; site strengths will be lower.

Compressive Strength Data	
24 hours	40N/mm²
7 days	52N/mm²
28 days	60N/mm²

Working Time & Mixing
Ronaset Concrete is rapid hardening however can be machine mixed for large volume applications. The working time is approximately 30-40 minutes depending on temperature; after this time the material will lose workability and begin to harden.

Working Temperatures
Ronaset Concrete can be used in most weather conditions and in a wide temperature range, from 0°C to 25°C. At high ambient temperature the working time of the mix will be reduced; it will be increased at lower temperatures.

Care must be taken when using Ronaset Concrete at low temperatures to ensure that the water used for damping does not freeze on contact with the substrate. In very low temperatures for additional speed warmed gauging liquid may be used for mixing. Similarly, exercise care at high temperatures to maintain damp working surfaces and avoid flash setting.

Instruction for Use

Preparation
The substrate to which Ronaset Concrete is to be bonded must be structurally sound and stable. Minimum compressive strength should be 25N/mm2 and minimum pull-off strength should be 0.8N/mm2. Surfaces should ideally be vacuum shot blasted or similar to expose the aggregate and provide a mechanical key. All grease and oil must be removed. Dust, debris and loose material must be removed by vacuuming.

Any defect or weakness in the substrate may result in failure of the topping placed in contact with it. The recommendations given in BS8204-3: 2004 Part 7 should be followed, to assess the suitability of the substrate and maximise the performance of the topping.

Damping
The prepared surface must be thoroughly damped with clean water. Very porous surfaces may require soaking for up to 24 hours. All surplus and standing water must be removed before the primer is applied.

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Priming
Ronacrete Rapid Primer must be applied to the damp surface immediately before applying Ronaset Concrete. Mix the primer thoroughly and apply evenly over the surface, ensuring total and uniform coverage, taking care to avoid ponding. Only prime an area which can be covered by the mortar within the working time of the primer. Note that the primer must not be allowed to dry. If it dries it must be thoroughly cross hatch scratched and reapplied.

Mixing
Ronaset Concrete is to be mixed in a forced action mixer (e.g. Baron or Creteangle), or minimum 1kW ≤ 450RPM slow speed drill fitted with an MR4 type helical paddle for single pack mixes. Mix the dry components and when evenly dispersed add the minimum amount of the supplied liquid necessary to provide sufficient workability for compaction and surface finish.

When using an efficient mixer, a mixing time of 2-3 minutes is normally sufficient. Do not overwork the mix as this will entrain air and may affect performance. Once mixed the mortar should be used as quickly as possible.

Placing
As soon as the material is mixed place it onto the wet/tacky primer, compact, rule and close with a float or trowel. Avoid overworking the surface.

Thicknesses above the maximum application depth must be placed monolithically (wet on wet) in more than one layer to ensure full compaction. Each layer should be of approximate equal thickness.

To ensure satisfactory adhesion between wet-on-wet layers the lower layer(s) must be lightly combed, raked or roughened to provide a key for the next layer.

If the previous layer has firmed up and lost workability it must be mechanically abraded before applying the next layer. Allow it to harden sufficiently (typically 4-6 hours at 20°C) then scabble, grit blast, needle gun or similarly mechanically abrade the surface to remove the top few mm of laitance and friable material. Then coat the prepared surface with Ronacrete Rapid Primer and apply the next layer on to the wet / tacky primer.

Finish the final surface with a float or trowel as required.

Shelf life & storage
Ronaset Concrete should be stored unopened between 5°C and 25°C in dry warehouse conditions and out of direct sunlight. In these conditions shelf life is approximately 9 months.

Health & Safety
Refer to product Safety Data Sheet

Site attendance
When on site Ronacrete representatives are able, if asked, to give a general indication of the correct method of installing a Ronacrete product. It is important to bear in mind that Ronacrete Ltd is a manufacturer and not a contractor and it is therefore the responsibility of the contractor and his employer to ensure he is aware of and implements the correct practices and procedures to ensure the correct installation of the product. Liability for correct installation lies with the contractor and not with Ronacrete Ltd.

Ronacrete
WORLD CLASS MANUFACTURER

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