

RonaScreed Mortar and Concrete

Rapid strength gain low temperature mortar and fine concrete floor screeds



FEATURES

- pre-packed formulations offer assurance of consistent high performance
- ready for foot traffic after 6 hours (Concrete) or 12 hours (Mortar)
- rapid drying—can receive floor coverings such as vinyl, tiles and carpet after 2-3 days @ 50mm
- rapid early strength development, ready for vehicle traffic after 6 hours (Concrete) or 24 hours (Mortar)
- excellent wear resistance
- unbonded and floating screeds from 35mm minimum thickness
- improved compressive, flexural and tensile strength
- compatible with underfloor heating systems

Description

RonaScreed Mortar is a rapid strength gain mortar for laying floor screeds, repairing floor surfaces and rapid set bedding applications for bricks, blocks, kerbs and compatible building components.

RonaScreed Concrete is a rapid strength gain fine concrete for laying floor toppings, repairing floor surfaces and rapid set concrete applications.

RonaScreed Mortar and Concrete are used where speed of strength gain and/or rapid reduction of residual moisture and humidity are of importance. Floors laid or repaired with RonaScreed Mortar can be fully trafficked as early as 12 hours after mixing; RonaScreed Concrete can be trafficked after 6 hours.

The speed of RonaScreed Mortar and Concrete make them ideal for floor renewal or renovation in factories, offices, shops, warehouses, on ramps, in distribution depots and in domestic premises where floors must be reinstated with minimum disruption and delay.

Water Vapour Permeability

As well as offering rapid strength gain they are strong and durable and capable of achieving 28 day strengths within hours. Their formulation also allows them to be applied at minimum temperatures of 0°C facilitating external work during cold weather and in freezer rooms and cold stores. For sub-zero repairs refer to RonaFloor Repair 1 Hour range.

Physical Properties (RonaScreed Mortar)

Compressive Strength

12 hours	25N/mm ²
24 hours	40/mm ²
28 days	50/mm ²

Foot traffic after Heavy traffic after

12 hours @ 20°C
24 hours @ 20°C

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Physical Properties (RonaScreed Mortar) (continued)

Time to reach RH below 75%	2-3 days
Waterproof	Yes
Frostproof	Yes
Pack size	25kg
Yield per pack	11 litres
Packs required per m³	90
Min / max thickness	6mm / 50mm

Physical Properties (RonaScreed Concrete)

Compressive Strength	
12 hours	29N/mm ²
24 hours	42/mm ²
28 days	56/mm ²
Foot traffic after	6 hours @ 20°C
Heavy traffic after	6 hours @ 20°C
Time to reach RH below 75%	2-3 days
Waterproof	Yes
Frostproof	Yes
Pack size	25kg
Yield per pack	10.5 litres
Packs required per m³	95
Min / max thickness	25mm / 100mm

Suitable Applications

- high strength screeds and toppings
- rapid moisture loss floors under vinyl coverings
- replacement overlays for worn and eroded surfaces
- same day repair and re-use
- patch repairs in high demand/constant access areas
- waterproof and frost resistant
- rapid strength gain bedding mortars

Working Time and Mixing

RonaScreed Mortar and Concrete are rapid hardening yet 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 firm up. Special modified grades are available to order with specific batches formulated to meet particular working time and strength gain requirements. Consult the Ronacrete Technical Department for information on standard and specific formulations.

Working Temperatures

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

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Working Temperatures (continued)

Care must be taken when using them at low temperatures to ensure that the water used for dampening (and the primer) does not freeze on contact with the substrate. In very low temperatures for additional speed warmed gauging liquid may be used for mixing.

Instructions for Use

Preparation

The substrate on which RonaScreed Mortar and Concrete are being placed must be structurally sound and stable and suitable to receive a high strength topping. Surfaces should ideally be scabbled or mechanically abraded to expose the aggregate and provide a mechanical key. Remove traces of oil, grease and any other chemical contamination which may impair adhesion. Vacuum clean surfaces to remove debris and deleterious material.

The substrate must be sufficiently strong and sound to receive a high strength topping. Any defect or weakness in this substrate may result in failure of the topping placed in contact with it. The recommendations given in BS8204 Part 3 should be followed to assess the suitability of the substrate and maximise the performance of the topping.

The minimum thickness at which RonaScreed Mortar can be placed is 6mm; the minimum at which RonaScreed Concrete can be placed is 25mm. Above 50mm (Mortar) or 100mm (Concrete) it may be necessary to place the material in more than one layer, wet on wet to ensure satisfactory compaction.

Dampening

The prepared surface must be thoroughly dampened 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.

Priming

RonaScreed Rapid Primer must be applied to the damp surface immediately before applying RonaScreed Mortar or 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 of floor which can be covered by the topping within the working time of the primer.

Note that the primer must be not allowed to dry. If it dries it must be thoroughly cross hatch scratched and reapplied.

Mixing

RonaScreed Mortar and Concrete are best machine mixed in a forced action mixer (e.g. Creteangle pan mixer). Do not use a free fall mixer. Mix the dry components and when evenly dispersed add the minimum amount of liquid necessary to provide sufficient workability for compaction and surface finish.

Placing as a screed or floor repair

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 50mm (Mortar), 100mm (Concrete) must be placed

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Instructions for Use (continued)

monolithically (wet on wet) in more than one layer to ensure full compaction. Each layer should be of approximately 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 laitence and friable material. Then coat the prepared surface with Ronacrete Rapid Primer and apply next layer on to the wet / tacky primer.

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

Placing as a bedding mortar (e.g. for pavers)

Place the mortar on to the wet/tacky primer, building up successive layers if necessary as described above (placing as a screed or floor repair). Before placing the component into the wet bedding mortar first clean the underside of the component and damp with clean water, remove excess and prime with a single coat of Ronacrete Rapid Primer. Whilst the primer is wet or tacky bed the block into the mortar ensuring adequate compaction and uniform contact with the mortar. Point with RonaScreed Mortar or other mortar as required.

Take care to avoid staining the face of the component with the mortar.

Using the surface

RonaScreed Mortar and Concrete can be trafficked as early as 12 hours/6 hours after laying (typically at 20°C.). This time will vary according to temperature, amount of liquid added during mixing, air circulation and general conditions.

Curing

To minimise the risk of shrinkage cracking and crazing cure the surface with Ronacrete Curing Membrane spray applied curing membrane as soon as possible after final trowelling.

When applying an epoxy floor coating such as RonaFloor EWB or HB or acrylic wall coatings such as RonaBond anti-carbonation coatings on to RonaScreed Concrete it is essential to remove the Ronacrete Curing Membrane from the surface (after not less than 24 hours curing) by light mechanical abrasion (eg. mechanical wire brushing, grit blasting) before applying the protective or decorative coating.

Failure to remove the Ronacrete Curing Membrane may result in debond of the coating. Refer to Ronacrete Curing Membrane data sheet.

Chemical Resistance

For details on chemical resistance properties please refer to the Ronacrete Technical Department.

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Shelf Life and Storage

RonaScreed Mortar and 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 and Safety

RonaScreed Mortar and Concrete is non hazardous although protective clothing such as goggles, overalls and gloves is recommended to prevent any effect from prolonged skin contact, inhalation or ingestion.


In the event of skin contact, wash with soap and water. Seek medical advice if irritation or pain occurs. In the event of eye contact, irrigate with plenty of clean water and seek immediate medical advice. In the event of ingestion, do not induce vomiting. Seek immediate medical advice.


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 an application 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 and that liability for its correct installation lies with the contractor and not with Ronacrete Ltd.

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<p>Ronacrete Ltd, Flex Meadow, Harlow Essex, CM19 5TD, UK</p> <p>13</p>
<p>BS EN 13813</p> <p>Floor Screed</p>
<p>Product: RonaScreed Mortar Reaction to Fire: A2-s1,d0 Release of Corrosive Substances: None Capillary Water Absorption: < 0.40kg / m2 . min0.5 Compressive Strength: ≥ C50 Flexural Strength: ≥ F5 Wear Resistance BCA method: AR2 Release of Dangerous Substances: Refer to Safety Data Sheet</p>


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The information detailed in this leaflet is liable to modification from time to time in the light of experience and of normal product application, and before using, customers are advised to check with Ronacrete Ltd, quoting the reference number, that they possess the latest issue. Any person or company using the product without first making further enquiries as to the suitability of the product for the intended use does so at his own risk, and Ronacrete Ltd can accept no responsibility for the performance of the product, or for any loss or damage arising out of such use.