

# RonaScreed Concrete

Rapid strength gain low temperature floor screed and repair mortar



## FEATURES

- pre-packed product for consistent high performance
- ready for foot traffic after 6 hours @ 20°C
- rapid drying—can receive floor coverings such as vinyl, tiles and carpet after 2-3 days @ 50mm
- rapid early strength development, ready for light vehicle traffic after 6 hours and heavy vehicle traffic after 24 hours
- excellent wear resistance
- unbonded and floating screeds from 35mm minimum thickness
- excellent compressive, flexural and tensile strength
- compatible with underfloor heating systems

## Description

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

RonaScreed Concrete is used where speed of strength gain and/or rapid reduction of residual moisture and humidity are of importance. Industrial, commercial and residential floors laid or repaired with RonaScreed Concrete can be fully trafficked as early as 6 hours after mixing.

RonaScreed Concrete offers rapid strength gain and is capable of achieving 28 day strengths within 24 hours. RonaScreed Concrete may be applied at minimum temperatures of 0°C, permitting exterior application during cold weather and application in cold stores. For sub-zero repairs refer to RonaFloor Repair 1 Hour range.

## Physical Properties

Note that the following data is based on laboratory tests conducted at 20°C. Cubes, tested at 28 days, 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.

### Typical Compressive Strength

12 hours	≥ 25N/mm <sup>2</sup>
24 hours	≥ 40/mm <sup>2</sup>
28 days	≥ 50/mm <sup>2</sup>

### Typical Flexural Strength

6 hours	>8N/mm <sup>2</sup>
24 hours	>11N/mm <sup>2</sup>
7 days	>15N/mm <sup>2</sup>
28 days	>19N/mm <sup>2</sup>

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## Physical Properties (continued)

### Typical Tensile Strength

6 hours	>3N/mm <sup>2</sup>
24 hours	>3.5N/mm <sup>2</sup>
7 days	>4N/mm <sup>2</sup>
28 days	>4.5N/mm <sup>2</sup>

<b>Foot traffic after</b>	<b>6 hours @ 20°C</b>
<b>Heavy traffic after</b>	<b>24 hours @ 20°C</b>
<b>Time to reach RH below 75%</b>	<b>2-3 days</b>
<b>Water resistant</b>	<b>Yes</b>
<b>Frost resistant</b>	<b>Yes</b>
<b>Pack size</b>	<b>25kg</b>
<b>Yield per pack</b>	<b>10.5 litres (0.0105m<sup>3</sup>)</b>
<b>Packs required per m<sup>3</sup></b>	<b>95.24</b>
<b>Min / max thickness</b>	<b>25mm/ 100mm approximately</b>

## Suitable Applications

- high early strength screeds and toppings
- high early strength floor repairs
- rapid drying for early application of flooring such as vinyl or tiles
- Early return to pedestrian and vehicle access
- rapid strength gain bedding mortars

## Instructions for Use

### Preparation

The substrate to which RonaScreed Concrete is to be bonded must be structurally sound and stable. Minimum compressive strength should be 25N/mm<sup>2</sup> and minimum pull-off strength should be 1.5N/mm<sup>2</sup>. Surfaces should be vacuum shot blasted, planed or scabbled to expose aggregate, remove laitance 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 or screed applied to it. The recommendations given in BS8204-3 section 7 should be followed, to assess the suitability of the substrate and ensure the performance of the topping. When repairing concrete with RonaScreed Mortar, repair perimeters must be saw cut and the concrete scabbled as required, to allow the minimum depth of mortar to be placed throughout.

### Wetting

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

### Priming

Brush apply a coat of Ronacrete Rapid Primer to the damp surface immediately before applying RonaScreed Mortar. Mix the primer thoroughly and apply evenly over the surfaces ensuring total and uniform coverage taking care to avoid ponding. Only prime an area of floor which can be covered by the mortar within the working time of the primer. The coverage rate of Ronacrete Rapid Primer is 1.5-2m<sup>2</sup> per kg. Note that the primer must not be allowed to dry. Dry primer must be thoroughly abraded and reapplied.

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### Instructions for Use (continued)

#### Mixing

RonaScreed Concrete must be mixed by forced action mixer (e.g. CreteAngle, Baron or similar) or high powered, slow speed drill and suitable spiral paddle (MR4 or similar) for approximately 3 minutes, shorter mixing times will not fully disperse the components and workability will be reduced. (continued)

Free fall mixers **must not** be used. Once mixed the mortar should be used as quickly as possible.

#### Placing

As soon as the mortar is mixed, it should be applied to wet/tacky primer, fully compacted, ruled and closed with a float or trowel within the typical working time of 30-40 minutes. Avoid overworking the surface, this will increase the tackiness of the mortar. The float should be regularly washed, to prevent build up of polymer/cement paste. Joints should be formed in the floor screed/topping in line with movement joints and bay joints; on suspended floors, joints should be positioned over slab supports to accommodate movement. For further information refer to BS8204-3. Protect from drying winds and sunlight until hardened.

#### 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. Immediately after priming, bed the block on the fresh mortar, ensuring adequate compaction and uniform contact with the mortar. Take care to avoid staining the face of the component with the mortar.

### Using the Surface

RonaScreed Concrete can be trafficked by foot as early as 6 hours after laying and by heavy vehicles after 24 hours (at 20°C.). This time may vary according to temperature and other site conditions.

### Laying Floor Finishes

Floor finishes, including resilient flooring, tiles and resin coatings/ screeds may typically be laid after 2-3 days air curing at 50mm thickness, 20°C and 60-65% relative humidity. Measure screed RH with a hygrometer in accordance with Annex A (normative) of BS 8203 Dampness testing.

### Working Temperatures

RonaScreed 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 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.

### Shelf Life and Storage

RonaScreed Concrete should be stored unopened between 5°C and 20°C in dry warehouse conditions and out of direct sunlight. In these conditions shelf life is approximately 9 months.

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## Health and Safety

RonaScreed Concrete is cement based, 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.

<p>Ronacrete Ltd, Flex Meadow, Harlow Essex, CM19 5TD, UK</p> <p>13</p>
<p><b>BS EN 13813</b></p> <p><b>Floor Screed</b></p>
<p><b>Product: RonaScreed Concrete</b>  <b>Reaction to Fire: A2-s1,d0</b>  <b>Release of Corrosive Substances: None</b>  <b>Capillary Water Absorption: &lt; 0.40kg / m2 . min0.5</b>  <b>Compressive Strength: ≥ C50</b>  <b>Flexural Strength: ≥ F2</b>  <b>Wearing Surfaces: AR1</b>  <b>Release of Dangerous Substances: Refer to Safety Data Sheet</b></p>

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.