

## Ronafix for Screeds

### Admixture for thin bonded, floating & unbonded screeds and toppings



#### FEATURES

- 47% solids content SBR admixture
- Will accept foot traffic after 24 hours
- Rapid drying—can receive floor coverings such as vinyl, tiles and carpet after 10 days @ 50mm thick
- Excellent wear resistance
- Bonded screeds from 6mm, unbonded and floating from 35mm minimum thickness
- Improved compressive, flexural and tensile strength
- Compatible with underfloor heating systems
- Excellent resistance to passage of water and water vapour
- Suitable for screed pumps

#### Description

Ronafix is an SBR admixture that increases the physical properties of site batched sand and cement screeds. Screeds containing Ronafix will have enhanced strengths which allow for thin section application and early access. The mix design for each is Ronafix admixture, cement, medium grade sharp sand, aggregate as determined by the mix design, plus water. The components are measured by weight or by volume on site and mixed to form the screed.

They are used with a primer of Ronafix and cement which achieves monolithic adhesion to correctly prepared concrete or screeds.

Ronafix screeds are used to lay new screeds and toppings as thin as 6mm bonded or 35mm unbonded and floating. The cured mortar bonds securely to suitably prepared surfaces and is water resistant.

#### Uses

Mix Design	Use	Minimum Thickness
Mix A	Screed or screed repair	6mm
Mix A1	Screed or screed repair	25mm
Mix B	Granolithic Topping or repair	15mm
Mix B1	Granolithic Topping or repair	25mm
Mix F	Floating screed	35mm
Mix G	Fine concrete screed	25mm

#### Mix Design and Physical Properties

Mix designs and physical properties can be found on the next page. Note that all quoted data is based on tests conducted at 20°C by casting 100mm cubes which are air cured. Results shown are typical strengths achieved by casting and curing cubes in laboratory conditions; site strengths will be lower. Water addition is variable according to the water content of the aggregate.

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### Mix Designs and Physical Properties

	Mix A	Mix A1	Mix B	Mix B1	Mix F	Mix G
Cement	50kg	50kg	50kg	50kg	50kg	50kg
0/4mm screeding sand	125kg	150kg	75kg	75kg	150kg	100kg
3-6mm granite chips	-	-	75kg	75kg	-	-
6-10mm pea shingle	-	-	-	-	-	100kg
Ronafix admixture	9 litres	4.5 litres	9 litres	4.5 litres	4.5 litres	4.5 litres
Water	Up to 9 litres	Up to 14 litres	Up to 9 litres	Up to 14 litres	Up to 14 litres	Up to 14 litres
Yield	0.1m <sup>3</sup>	0.1m <sup>3</sup>	0.1m <sup>3</sup>	0.1m <sup>3</sup>	0.1m <sup>3</sup>	0.14m <sup>3</sup>
<b>Compressive Strength</b>						
1 day	38N/mm <sup>2</sup>	16N/mm <sup>2</sup>	37N/mm <sup>2</sup>	16N/mm <sup>2</sup>	16N/mm <sup>2</sup>	23N/mm <sup>2</sup>
7 days	56N/mm <sup>2</sup>	36N/mm <sup>2</sup>	59N/mm <sup>2</sup>	36N/mm <sup>2</sup>	36N/mm <sup>2</sup>	47N/mm <sup>2</sup>
28 days	70N/mm <sup>2</sup>	47N/mm <sup>2</sup>	71N/mm <sup>2</sup>	47N/mm <sup>2</sup>	47N/mm <sup>2</sup>	58N/mm <sup>2</sup>
<b>Tensile Strength</b>						
7 days	5.0N/mm <sup>2</sup>	3.3N/mm <sup>2</sup>	5.7N/mm <sup>2</sup>	4.5N/mm <sup>2</sup>	3.3N/mm <sup>2</sup>	4.5N/mm <sup>2</sup>
28 days	7.1N/mm <sup>2</sup>	4.5N/mm <sup>2</sup>	6.7N/mm <sup>2</sup>	5.5N/mm <sup>2</sup>	4.5N/mm <sup>2</sup>	6.0N/mm <sup>2</sup>
<b>Flexural Strength</b>						
7 days	12.9N/mm <sup>2</sup>	7.9N/mm <sup>2</sup>	9.8N/mm <sup>2</sup>	15N/mm <sup>2</sup>	7.9N/mm <sup>2</sup>	17.0N/mm <sup>2</sup>
28 days	16.2N/mm <sup>2</sup>	9.5N/mm <sup>2</sup>	11.5N/mm <sup>2</sup>	20N/mm <sup>2</sup>	9.5N/mm <sup>2</sup>	18.0N/mm <sup>2</sup>

### Instructions for Use

#### Preparation

The substrate on which the Ronafix screeds are being placed must be structurally sound and stable and suitable to receive a high strength topping. 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. Note the minimum and maximum application depths for each mix design. Surfaces must be cut back to allow the minimum depth of mortar to be placed without feather edging.

#### Damping

The prepared surfaces must be thoroughly damped 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 Rona fix / cement primer mixed 1:1 by volume to the damp surface immediately before applying the screed, at the rate of 3-4m<sup>2</sup> approximately per litre of Ronafix. 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.

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### Instructions for Use (continued)

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

#### Mixing

Ronafix screeds should be mixed by forced action mixer or high powered, slow speed drill and suitable spiral paddle. Machine mixing will more easily provide a mortar with even dispersion of mix components and a lower water/cement ratio. The use of a forced action mixer (e.g.. Creteangle or Screedmaster) will provide optimum performance; free fall mixers cause the mortar to ball up with a resultant reduction in performance and their use is not recommended. Depending on the quality of mixer used and the moisture content of sands and aggregates it may not be necessary to add the full amount of water specified in the mix design. When using an efficient mixer, a mixing time of 2-3 minutes is normally sufficient. Do not overmix as this will entrain air and may affect performance. It is essential to the performance of the screed that there is sufficient gauging liquid in the mix and that the correct amount of Ronafix is used. The consistency of the screed must **not** be semi-dry, good compaction cannot be achieved with a semi-dry mix. To test for correct consistency, make a ball of the mixed material. If the ball can be pulled apart without crumbling, the mortar will contain sufficient gauging liquid to fully hydrate the cement and allow proper compaction. Once mixed the mortar should be used as quickly as possible.

#### Placing

As soon as the mortar is mixed, it should be placed onto the wet/tacky primer, compacted, ruled and closed with a float or trowel. Avoid overworking the surfaces, this will increase the tackiness of the mortar. The float should be regularly washed, to prevent build up of polymer/cement paste. Some Ronafix Wearing Screeds contain granite and may need to be polished and finished by final trowelling after placing.

Screeds and toppings with an overall thickness greater than the maximum depth per layer, 50mm approximately, must be placed monolithically (wet on wet) in more than one layer to ensure compaction. Each layer should be of approximately equal thickness and using the same mix design. To ensure satisfactory adhesion the lower layer(s) should be lightly combed, raked or roughened to provide a key for the next layer. Should intermediate layers dry, a priming coat must be applied between layers.

Joints should be formed in the floor screed/topping in line with expansion, contraction and movement joints and, on suspended floors, over support positions to accommodate movement. Isolation joints should also be placed around the perimeter of floor slabs and around columns, manholes and fixed bases. Joints should also be formed between any hot and cold areas of the floor. For further information refer to BS8204-3.

#### Curing

As soon as possible after finishing the surface, cure with Ronacrete Curing Membrane. Alternatively use tight fitting polythene leaving in place for at least 24 hours to prevent rapid moisture loss and surface cracking and crazing. Take care not to damage the surface. The use of Ronacrete Curing Membrane is preferred, because curing may commence immediately after trowelling is complete.

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### Using the Surface

Ronafix screeds, toppings and repairs can receive foot traffic after 24-36 hours (typically at 20°C) and after 3-5 days (typically at 20°C) heavy traffic may be allowed. This time will vary according to temperature, amount of liquid added during mixing, air circulation and general conditions.

### Overlaying

The time at which floor coverings can be laid over a Ronafix floor is dependent on residual moisture content. Testing for relative humidity (RH) at the surface is an accepted non-destructive means of determining residual moisture content. Typically, a Ronafix screed will achieve 75% RH after 10 days air curing at 50mm thickness. Measure RH with a correctly calibrated hygrometer.

### Working Temperatures

Ronafix screeds can be used in most weather conditions and in a wide temperature range, typically from +3°C to 25°C and above. Note that at high ambient temperatures the working time of the mix will be reduced; it will be increased at lower temperatures. Materials should ideally be stored between 10°C and 20°C before use.

### Shelf Life and Storage

Ronafix 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 6 months.

### Health and Safety

Refer to 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 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.

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.