Ronafix for Screeds

Admixture for thin bonded, floating & unbonded screeds and toppings

FEATURES

- **BBA Certificate 89/2150**
- **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 screeds are site batched screeding mortars and fine concretes. 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 or floating. The cured mortar bonds securely to suitably prepared surfaces and is water resistant.

Uses

Ronafix Mix A
Screed or screed repair from 6-50mm

Ronafix Mix A1
Screed or screeds repair from 25mm

Ronafix Mix B
Granolithic Topping or repair from 15-25mm

Ronafix Mix B1
Granolithic Topping or repair from 25mm

Ronafix Mix F
Floating screed from 35mm

Ronafix Mix G
Fine concrete screed from 26mm

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Ronafix Mix A Mix Design and Physical Properties

Cement	**50kg**
Medium sharp sand	**125kg**
Ronafix	**9 litres**
Water	**up to 9 litres**
Yield per mix	**0.1m³ (approx)**
Compressive Strength	
1 day	38N/mm²
7 days	56N/mm²
28 days	70N/mm²
Tensile Strength	
7 days	5.0N/mm²
28 days	7.1N/mm²
Flexural Strength	
7 days	12.9N/mm²
28 days	16.2N/mm²

Ronafix Mix A1 Mix Design and Physical Properties

Cement	**50kg**
Medium sharp sand	**150kg**
Ronafix	**4.5 litres**
Water	**up to 14 litres**
Yield per mix	**0.1m³ (approx)**
Compressive Strength	
1 day	16N/mm²
7 days	36N/mm²
28 days	47N/mm²
Tensile Strength	
7 days	3.3N/mm²
28 days	4.5N/mm²
Flexural Strength	
7 days	7.9N/mm²
28 days	9.5N/mm²

Ronafix Mix B Mix Design and Physical Properties

Cement	**50kg**
Medium sharp sand	**75kg**
3-6mm Granite chips	**75kg**
Ronafix	**9 litres**
Water	**up to 9 litres**
Yield per mix	**0.1m³ (approx)**

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Ronafix Mix B Mix Design and Physical Properties (continued)

Compressive Strength	
1 day	37N/mm²
7 days	59N/mm²
28 days	71N/mm²
Tensile Strength	
7 days	5.7N/mm²
28 days	6.7N/mm²
Flexural Strength	
7 days	9.8N/mm²
28 days	11.5N/mm²

Ronafix Mix B1 Mix Design and Physical Properties

Cement	**50kg**
Medium sharp sand	**75kg**
6-10mm Granite chips	**75kg**
Ronafix	**4.5 litres**
Water	**up to 14 litres**
Yield per mix	**0.1m³ (approx)**
Compressive Strength	
1 day	16N/mm²
7 days	36N/mm²
28 days	47N/mm²

Ronafix Mix F Mix Design and Physical Properties

Cement	**50kg**
Medium sharp sand	**150kg**
Ronafix	**4.5 litres**
Water	**up to 13.5 litres**
Yield per mix	**0.1m³ (approx)**
Compressive Strength	
1 day	16N/mm²
7 days	36N/mm²
28 days	47N/mm²
Tensile Strength	
7 days	3.3N/mm²
28 days	4.5N/mm²
Flexural Strength	
7 days	7.7N/mm²
28 days	9.5N/mm²

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Ronafix Mix G Mix Design and Physical Properties

Cement	**50kg**
Medium sharp sand	**100kg**
5-10mm Pea shingle	**100kg**
Ronafix	**4.5 litres**
Water	**up to 14 litres**
Yield per mix	**0.14m³ (approx)**

Compressive Strength

1 day	23N/mm²
7 days	47N/mm²
28 days	58N/mm²

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.

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 Ronafix / cement primer mixed 1:1 by volume to the damp surface immediately before applying the screed, at the rate of 3-4m^2 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.

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

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Instructions for Use (continued)

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

The mix designs contain cement protective clothing, such as goggles, masks, overalls and barrier cream/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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Ronacrete Ltd,
Flex Meadow, Harlow

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0836-CPR-13/F042

BS EN 934-2
BS EN 934-3
Concrete Admixture

Product: Ronafix
Reaction to Fire: A2-s1,d0
Release of Corrosive Substances: None
Water Permeability: < 0.40kg / m2 . min0.5
Compressive Strength: ≥ C50
Flexural Strength: ≥ F7
Wear Resistance BCA method: AR1
Release of Dangerous Substances: Refer to Safety Data Sheet

Ronacrete
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