Ronafix Pre-packed Screed 6-50mm

Polymer modified wearing & levelling screed and floor repair mortar

Description
Ronafix Pre-packed Screed 6-50mm is supplied as a pre-packed, two component, ready to use mortar for laying wearing and levelling floor screeds. Ronafix Pre-packed Screed 6-50mm is supplied complete with all the blended dry components in a bag and a bottle of polymer gauging liquid. Ronacrete Standard Primer two part polymer cement bonding agent is required for bonded screed applications (refer to separate data sheet).

Ronafix Pre-packed Screed 6-50mm may be applied significantly thinner than unmodified screeds due its superior physical properties.

Features
- **factory blended for consistency**
- **abrasion resistance - AR0.5 (special)**
- **excellent slip resistance**
- **suitable in very heavy duty industrial premises**
- **ready for foot traffic after 24 hours**
- **rapid drying**
- **bonded screeds from 6mm thickness**
- **unbonded and floating screeds from 35mm**
- **compatible with wet UFH systems from 40mm**
- **maximum application thickness 90mm**
- **excellent resistance to passage of water**
- **can be laid to falls**
- **internal and external application**

Packaging
25kg total pack size (22.6kg bag & 2.4kg liquid)

Coverage
Coverage per pack	1.8m² @ 6mm 1.1m² @ 10mm 0.31m² @ 35mm 0.22m² @ 50mm
Yield per pack	11 litres
Pack required per m³	91 packs approximately

Minimum / maximum thicknesses	
Bonded (light duty)	Minimum 6mm
Bonded (medium duty)	Minimum 10mm
Bonded (very heavy duty)	Minimum 20mm
Unbonded	Minimum 35mm
Floating	Minimum 35mm
Maximum product thickness	90mm (single layer)

Usage classification as described in BS 8203-3 (6.2 Table 1)

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.

Strength data (BS EN 13892-2)			
	Compressive	Tensile	Flexural
1 day	> 30N/mm²		
7 days	> 45N/mm²	> 4.5N/mm²	> 12N/mm²
28 days	> 55N/mm²	> 6N/mm²	> 15N/mm²

Abrasion resistance (BS EN 13892-4)	
Performance class	AR0.5 (special)

Slip resistance (BS 8204-3 Annex A1)	
Steel float finish (dry)	PTV 57
Steel float finish (wet)	PTV 46

Water penetration (Vinci Technology Centre UK Ltd)	
Water pressure resistance	> 10 bar

Drying Data
The drying data is based on drying at 20ºC and 60±5% relative humidity. Low temperature and high humidity will delay drying. If the screed is covered with a curing membrane such as polythene, then the drying time starts when the membrane is removed.

The relative humidity (RH) at the surface of the screed should be measured with a hygrometer, as required by BS 8203 Annex B, before proceeding to lay floor coverings. Drying times on site will vary according to site conditions.

Accelerated drying of the screed by forced heating or ventilation should not be used. Gentle background heating to maintain temperature of 15ºC to 20ºC after curing is acceptable (BS 8204-3, 8.8.4)

Drying data (time to achieve 75%RH)	
25mm thickness	12 days
50mm thickness	10 days
75mm thickness	5 days
90mm thickness	5 days

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Working temperatures
Ronafix screeds can be used in most weather conditions and in a wide temperature range, typically from +5°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. In cold weather the surface temperature of the laid screed (not the air temperature) should be maintained at above 5°C during construction and for four to five days after laying. In this way the screed will normally achieve sufficient strength to resist damage by freezing.

Substrate requirements
The substrate to which Ronafix Pre-packed Screed 6-50mm is to be bonded must be structurally sound and stable. Minimum compressive strength should be 25N/mm^2 and minimum pull-off strength should be 0.8N/mm^2.
The base should be dry (<75%RH) and should incorporate an effective DPM. In the absence of a functioning DPM, use RonaFloor Epoxy DPM beneath the screed (refer to separate data sheet).

Preparation
For bonded application, 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 Ronafix Pre-packed Screed 6-50mm, repair perimeters must be saw cut and the concrete scabbled as required, to allow the minimum depth of mortar to be placed throughout.

For unbonded application, all sudden deviations in the substrate levels may be points of restraint (causing cracking), therefore should be removed before application of a polythene slip membrane.

For floating application, ensure the base provides a level bearing surface for the insulation to prevent rocking of the boards. Ensure the insulation is sufficiently strong to support the anticipated load transmitted through the screed without deforming. Apply a suitable slip membrane (500 gauge polythene) over the insulation prior to the application of the screed.

For unbonded and floating application, position isolation joints in doorways and around all perimeters and openings in the screed to prevent restraint by fixed elements, thus ensuring free movement of the screed.

Surface wetting
For bonded application, 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 Standard Primer to the damp surface immediately before applying Ronafix Pre-packed Screed 6-50mm. Mix the primer thoroughly using a slow speed drill (max 450 RPM), fitted with a MR2 paddle attachment until the components are fully dispersed 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 Standard Primer is 1.5-2m² per kg. Note that the primer must not be allowed to dry. Dry primer must be thoroughly abraded and reapplied.

Mixing
Ronafix Pre-packed Screed 6-50mm 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. Free fall mixers **must not** be used. The product is not suitable for pumping.

To test for correct consistency a ball should be made of the mortar, squeezing of the ball should not produce free liquid. When the ball is pulled apart it should separate in two pieces without crumbling. Crumbling of the mortar is an indication of insufficient gauging liquid. 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. 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. Working time is approximately 45 minutes at 20ºC.

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. 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.

Bay proportions
Screed bay proportions should ideally be 1:1 length to width and should not exceed 3:2 to avoid the risk of stress relief cracking, the risk increases with the difference between bay length and width. Stress relief joints may be cut into fresh screed with the edge of a steel float and trowelled over to produce a smooth surface, or formed by laying separate bays. The depth of the cut should extend to at least 50% of the screed thickness unless steel mesh, heating pipes or conduits require a shallower cut. Stress relief joints may also be formed by early age saw cutting but care must be taken to ensure that cutting is carried out before stress relief cracks can form. Where rigid finishes such as tiles are to be laid, bay joints should be positioned to coincide with tile joints and the use of an uncoupling layer should be considered.

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Joints
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.

Expansion joints for heated screeds to receive most types of rigid floorings and some types of resilient floorings should be positioned so that screed bays are no larger than 40m² with a length no greater than 8m, see BS 8204-1 Design Considerations. Separate heating zones should be divided by expansion joints

Curing
As soon as possible after finishing the surface, cure with Ronacrete Curing Membrane. Alternatively use tight fitting polythene, to be left in place for at least 24 hours, to prevent rapid moisture loss from the surface. The use of Ronacrete Curing Membrane is preferred, because curing may commence immediately after trowelling is complete. Early application of curing membrane is particularly important when the surface is exposed to sunlight and/ or drying winds.

Using the surface
Ronafix Pre-packed Screed 6-50mm can typically receive foot traffic after 24 hours and heavy traffic after 3-5 days at 20^0C. Allow additional time in colder conditions.

Shelf life & storage
Ronafix Pre-packed Screed 6-50mm 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 & 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.

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.

Ronacrete
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