



## RonaScreed FastDry Prompt

### Fast drying screed additive

#### Description

RonaScreed FastDry Prompt screeding additive for site batched screeds is used to quickly reduce the level of retained moisture within the screed allowing floor coverings to be laid over the screed much sooner than with conventional screeds. RonaScreed FastDry Prompt gains strength quickly, permitting early access by following trades.

RonaScreed FastDry Prompt is typically incorporated within 25mm to 100mm thick floor screeds and applied by competent screeding contractors. RonaScreed FastDry Prompt is simple and straightforward to use and can be purchased and laid by non-licensed screeding contractors.

#### Features

- **foot traffic after 24 hours at 20°C**
- **rapid drying**
- **rapid early strength development**
- **compressive strength in excess of 40N/mm<sup>2</sup>**
- **bonded screeds from 25mm thickness**
- **unbonded and floating screeds from 65mm**
- **compatible with wet UFH systems**
- **suitable for screed pumps**
- **can be laid to falls**
- **concentrated admixture saves packaging waste**

#### Drying Times

The data is based on drying @ 20°C and 60±5% relative humidity. Low temperature, high humidity, increased screed thickness and changing the mix design 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. Standard practices should be followed. Drying time on site will vary according to site conditions.

Mix Designs 1 & 2	50mm	75mm	100mm
Time to 80% RH	5 days	6 days	7 days
Time to 75% RH	8 days	9 days	10 days

  

Mix Designs 3	50mm	75mm	100mm
Time to 80% RH	3 days	2 days	2 days
Time to 75% RH	4 days	6 days	6 days

Mix 1 independently tested by VINCI Technology Centre UK Ltd - Cert. No. 29891  
The accepted relative humidity at the surface of a screed for the laying of vinyl floor coverings, tiles etc is 75%.

#### Mix Designs

	Mix 1	Mix 2	Mix 3
Use	Medium to heavy duty	Heavy duty	Medium to heavy duty
Portland cement (CEM II 42.5)	50kg	50kg	50kg
0/4mm screeding sand	150kg	75kg	150kg
5/10mm granite	-	75kg	-
RonaScreed FastDry Prompt	1 litre	1 litre	2 litres
Water addition	See note below	See note below	See note below
Yield per mix	0.1m <sup>3</sup>	0.1m <sup>3</sup>	0.1m <sup>3</sup>

#### Note: Water addition

Water addition will depend on the sand water content. 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.

#### Consumption Rate

	Mix 1	Mix 2	Mix 3
Per m <sup>2</sup> @ 50mm	0.5 litres	0.5 litres	1 litre
Per m <sup>2</sup> @ 75mm	0.75 litres	0.75 litres	1.5 litres
Per m <sup>2</sup> @ 100mm	1 litre	1 litre	2 litres
Per cubic metre	10 litres	10 litres	20 litres

#### Minimum Thickness

RonaScreed FastDry Prompt screeds can be laid either bonded, unbonded or floating, determined by the substrate type.

#### Bonded Screed (from 25mm)

- suitable substrate, mechanically prepared
- prime with Ronafix SBR : cement (1;1)

#### Bonded Screed (from 50mm)

- suitable substrate, mechanically prepared
- primer with cement : water (2:1)

#### Unbonded Screed (from 50mm)

- solid substrate on minimum 500 gauge polythene

#### Floating Screed (65mm minimum)

- **Light residential use only**
- insulation board or acoustic layer

#### Floating Screed (75mm minimum)

- **All uses other than light residential**
- insulation board or acoustic layer

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### Physical Properties

Note that the following data is based on laboratory tests conducted at 20°C. Cubes, tested at 28 days, are 50mm and air cured. Results shown are typical laboratory strengths achieved by casting and curing cubes in ideal working conditions; site strengths will be lower.

Mix 1 - Strength data (BS EN 13892-2)			
	Compressive	Tensile	Flexural
1 day	> 16N/mm <sup>2</sup>	> 1.7N/mm <sup>2</sup>	> 4.0N/mm <sup>2</sup>
7 days	> 42N/mm <sup>2</sup>	> 2.5N/mm <sup>2</sup>	> 5.5N/mm <sup>2</sup>
28 days	> 46N/mm <sup>2</sup>	> 3.0N/mm <sup>2</sup>	> 6.0N/mm <sup>2</sup>

Mix 2 - Strength data (BS EN 13892-2)			
	Compressive	Tensile	Flexural
1 day	> 35N/mm <sup>2</sup>	> 2.0N/mm <sup>2</sup>	> 4.5N/mm <sup>2</sup>
7 days	> 62N/mm <sup>2</sup>	> 2.8N/mm <sup>2</sup>	> 5.6N/mm <sup>2</sup>
28 days	> 64N/mm <sup>2</sup>	> 3.1N/mm <sup>2</sup>	> 6.2N/mm <sup>2</sup>

Mix 3 - Strength data (BS EN 13892-2)			
	Compressive	Tensile	Flexural
1 day	> 17N/mm <sup>2</sup>	> 1.4N/mm <sup>2</sup>	> 3.3N/mm <sup>2</sup>
7 days	> 38N/mm <sup>2</sup>	> 2.8N/mm <sup>2</sup>	> 5.3N/mm <sup>2</sup>
28 days	> 42N/mm <sup>2</sup>	> 2.9N/mm <sup>2</sup>	> 5.6N/mm <sup>2</sup>

### Working temperatures

RonaScreed FastDry Prompt 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.

### Substrate requirements

The base should be dry (<75%RH) and should incorporate an effective DPM. In the absence of a functioning DPM, use RonaFloor Epoxy DPM or Monoprufe DPM beneath the screed (refer to separate data sheets).

### Preparation - Bonded Screeds

The substrate on which the RonaScreed FastDry Prompt screed is being placed must be structurally sound and stable. 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 BS8204-1: 2004 Part 7 should be followed, to assess the suitability of the substrate and maximise the performance of the topping.

### 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

Excess water must be removed and the appropriate bond coat applied. For screeds up to 50mm thickness a mix of 1:1 Ronafix SBR: Portland cement brushed in to the surface or, over 50mm thickness, a 2:1 cement/water slurry. Before this dries the screed must be laid.

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

### Preparation—Unbonded Screeds

Position isolation joints in doorways and on all perimeter upstands and openings in the screed to ensure that the screed is not restrained by fixed building elements.

Sudden deviations in substrate levels may be points of restraint and should be removed where possible. Remove all loose materials and apply a polythene slip membrane.

### Preparation—Floating Screeds (unheated or heated)

Ensure the slab provides a level bearing surface for the insulation, to prevent rocking.

Ensure the insulation is sufficiently strong to support the anticipated load transmitted through the screed without deforming.

After the insulation has been laid, apply a suitable slip membrane (typically 500 gauge polythene)

Position isolation joints in doorways and on all perimeter upstands and openings in the screed to ensure that the screed is not restrained by fixed building elements.

### Mixing

RonaScreed FastDry Prompt screeds should be mixed by forced action mixer or screed pump (e.g. Putzmeister). 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. 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. Dry mix the cement and sand then add the RonaScreed FastDry Prompt liquid

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followed by sufficient clean water to produce a workable mix and fully hydrate the cement. 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 liquid to fully hydrate the cement and allow proper compaction. Once mixed the mortar should be used as quickly as possible.

### Working time

Approximate working time	
10°C	20°C
2 hours	1.5 hours

### Placing

As soon as the mortar is mixed, it should be placed onto the wet/tacky primer (if bonded), compacted, ruled and closed with a float or trowel.

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.

### Embedded Conduits

When laying conduits within RonaScreed FastDry Prompt screeds the conduit should be a minimum of 25mm beneath the top surface. It is advisable to incorporate reinforcing mesh centrally within the depth of the screed over the conduit or pipe, extending for not less than 150mm each side to minimise the risk of cracking.

### 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.

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.

### 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 BS8204-1.

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 40m<sup>2</sup> with a length no greater than 8m, see BS 8204-1 Design Considerations. Separate heating zones should be divided by expansion joints

### Curing

Curing must commence as soon as possible after finishing the screed. Cure the screed with tight fitting polythene, placed on to the screed as early as possible without damaging the surface. Cover for 24 hours @ 20°C to prevent rapid moisture loss and surface cracking and crazing, then remove and air cure. Take care not to damage the surface.

### Contractors

Unlike other screeds of a similar nature RonaScreed FastDry Prompt can be purchased and applied by competent screeding contractors throughout the country. Ronacrete Ltd maintains a list of national and local contractors who are familiar with this type of flooring system and their application procedure.

### Packaging

Supplied in 20, 210 & 1000 litre units.

### Shelf life and storage

Shelf life in unopened containers is 9 months. Store in a cool dry place. Protect from frost.

### Health & 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.