RonaScreed 8 Day Overlay Fast Drying Screed

Fast drying screed additive



FEATURES

- **will accept foot traffic after 24 hours @ 20^{0}C**
- **rapid drying—can receive floor coverings such as vinyl, tiles and carpet after 8 days @ 50mm thick and 15 days at 75mm**
- **rapid early strength development**
- **liquid admixture disperses quickly and fully in the gauging liquid**
- **apply as a bonded screed from 35mm, unbonded from 50mm and floating from 65mm**
- **compatible with underfloor heating**
- **compressive strength in excess of 40N/mm² can be achieved after 28 days, see mix design**
- **suitable for screed pumps**
- **concentrated admixture saves packaging waste**

Description

RonaScreed 8 Day Overlay 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 8 Day Overlay gains strength quickly, permitting early access by following trades.

RonaScreed 8 Day Overlay is supplied in concentrated form and used in low dilution. It promotes rapid drying and early laying of floor coverings such as sheet vinyl, tiles and other materials including the range of RonaFloor Epoxy and Polyurethane coatings (refer to Ronacrete Technical Department).

RonaScreed 8 Day Overlay is typically incorporated within 35mm to 75mm thick floor screeds and applied by competent screeding contractors. RonaScreed 8 Day Overlay is simple and straightforward to use and can be purchased and laid by non-licensed screeding contractors.

Drying Time of 50mm screed	**3 days**	**80% relative humidity**
	6 days	**78%**
	8 days	**74%**
Drying Time of 75mm screed	**3 days**	**86% relative humidity**
	7 days	**82%**
	11 days	**77%**
	15 days	**75%**

The accepted relative humidity at the surface of a screed for the laying of vinyl floor coverings, tiles etc is 75%.

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Drying

The data is based on drying @ 20°C and 60% 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 measured with a hygrometer before proceeding to lay floor coverings. Standard practices should be followed.

Physical Properties

Compressive Strength	
1 day	23N/mm²
28 days	48N/mm²

The above are typical laboratory results @ 20°C. Site strengths will be lower.

Approximate Yield

Required per m² @ 50mm	**0.5 litres**
Required per m² @ 75mm	**0.75 litres**
Required per m³	**10 litres**

Mix Design

Portland cement (CEM 11 42.5)	**50kg**
0/4mm Screeding Sand	**150kg**
RonaScreed 8 Day Overlay Fast Drying Screed	**1 litre**
Water	**Up to 18 litres**
Yield per mix	**0.1m³**

Note that water addition will depend on aggregate water content

Surface Drying

Drying concrete must be separated from the screed by polythene or RonaScreed DPM surface damp proof membrane. Screeds thicker than those referred to will take longer to dry out. Screeds which are wetted during their application or curing will take longer to dry out.

Note that RonaScreed screeds are designed to be covered with carpet, vinyl, tiles or other coverings and are not designed as wearing screeds or toppings. For wearing screeds Ronafix or RonaScreed Self Smoothing Topping should be used.

Areas of Use

RonaScreed 8 Day Overlay Fast Drying Screed screeds can be laid in the following situations:

- over concrete slabs
- over existing screeds
- on to damp proof membranes, minimum thickness 35mm bonded to RonaScreed DPM, unbonded 50mm minimum on bitumen or sheet membranes.
- on insulating board (minimum thickness 65mm)
- unbonded (minimum thickness 50mm)

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Bonded, Unbonded and Floating Screeds

RonaScreed 8 Day Overlay screeds can be laid either bonded, unbonded or floating, determined by the substrate type. Bonded screeds must be laid on to a suitably prepared substrate (see Surface Preparation). Unbonded screeds are those laid on a separating layer or preformed damp proof membrane. Floating screeds are those laid on to an insulation board.

Bonded Screed (from 35mm)
- suitable substrate, mechanically prepared (and optionally covered with RonaScreed DPM)
- prime with Ronacrete Standard Primer

Bonded Screed (from 50mm)
- suitable substrate, mechanically prepared
- primer with cement : water (2:1)

Unbonded Screed (from 50mm)
- solid substrate with polythene or other suitable slip membrane

Floating Screed (65mm)
- Light duty use
- insulation board

Floating Screed (75mm)
- Heavy duty use
- insulation board

Damp Proof Membrane

A damp proof membrane should be present the under the concrete slab to prevent moisture penetration from below. If no membrane is present or if the concrete is drying, apply two coats of RonaScreed DPM or install a sheet or similar membrane. If RonaScreed DPM is laid on to a clean, sound and correctly prepared substrate as specified in the RonaScreed DPM data sheet it is possible to lay RonaScreed 8 Day Overlay at a minimum thickness of 35mm, bonded to the RonaScreed DPM with a primer of Ronafix and cement.

Mix Components and Design

The basic components of a RonaScreed 8 Day Overlay screed are Portland cement (CEM II 42.5), 0/4mm screeding sand, RonaScreed 8 Day Overlay and clean water, the water content shown in mix designs must be adhered to, dry mixes will fail to fully hydrate the cement. Larger sized aggregates are used for concrete or granolithic finishes; see Table 4 of BS882.

RonaScreed 8 Day Overlay Mix 1 yields approximately 0.1m^3. The density of the cured screed is approximately 2300kg/m^3. This mix design can be extended to 1:4 (cement: sand) by weight if preferred, but strength will be reduced and drying time will be extended.

Instructions for Use

Surface Preparation
The surface on to which a RonaScreed 8 Day Overlay screed is to be bonded must be clean, structurally sound and stable. All grease, oil, laitance and loose material must be removed. The surface must be keyed to expose the

Continued on following page...

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Instructions for Use (continued)

aggregate and to provide good adhesion. This is best achieved by scabbling, planing or shot blasting. The prepared surface must be cleaned (ideally by vacuum), damped with clean water and excess water removed.

Mixing
RonaScreed 8 Day Overlay must be mixed using a forced action mixer. Dry mix the cement and sand then add the RonaScreed 8 Day Overlay liquid followed by sufficient clean water to produce a workable mix and fully hydrate the cement. The screeder should be able to make a ball of the mixed mortar and pull it apart without crumbling of the mortar.

Priming
The prepared surface must be thoroughly damped with clean water and the water allowed to soak in.

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

Laying
Standard screeding practices should be followed. The mortar must be placed as soon as possible after mixing and well consolidated. Conventional tools such as float and trowel are used to obtain the desired surface finish.

Embedded Conduits and Pipes
When laying conduits or pipes within RonaScreed 8 Day Overlay screeds the conduit or pipe 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.

Joints
Bay proportions should not exceed 1.5:1 length to width, joints should be positioned as follows:

- construction joints in the substrate must be expressed through into the screed
- movement joints in the substrate must be expressed through into the screed
- when laying on suspended floors, movement joints should be installed in the screed over support positions to accommodate movement
- isolation joints should be installed around the perimeter of the floor and around columns, manholes and fixed spaces to accommodate movement
- Heated screeds may require movement joints positioned to limit screed bays to a maximum of 40m^2 with a maximum bay length of 8m. This applies when rigid floorings and some types of resilient flooring are to be applied
- Separate heating zones should be divided by expansion joints

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Instructions for Use (continued)

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 then remove and air cure.

Pumping
RonaScreed 8 Day Overlay modified screeds can be pumped to the point of laying. Tests have been conducted using Putzmeister equipment and specific guidance should be sought from Ronacrete Ltd.

Contractors

Unlike other screeds of a similar nature RonaScreed 8 Day Overlay 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.

The use of RonaScreed 8 Day Overlay is simple and straightforward and satisfactory performance will be achieved provided the correct methods are followed.

There are obvious advantages in selecting a contractor who has previous experience of the material but if requested the Ronacrete Technical Department will provide guidance and assistance to other contractors.

Other Flooring Materials

Depending on the specific requirements of the floor system being laid Ronacrete may recommend an alternative product which may be more suited to the application.

To discuss the use of Ronacrete materials for any application please contact the Ronacrete Technical Department for full technical and practical guidance at design and specification stage together with site assistance and practical backup.

Packaging

RonaScreed 8 Day Overlay Fast Drying Screed is supplied in 20, 210 and 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 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

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Site Attendance (continued)

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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BS EN 13813
Floor Screed

Product: RonaScreed 8 Day Overlay Fast Drying Screed
Compressive Strength: ≥ C40
Flexural Strength: > F7
Wear Resistance BCA method: AR2
Release of Dangerous Substances: Refer to Safety Data Sheet

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.

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