

RonaScreed Pre-packed Fast Drying Underfloor Heating Screed

Pre-packed fast drying underfloor heating screed



FEATURES

- **Conforms to BS EN 13813**
- **Suitable for underfloor heating systems**
- **Will accept foot traffic after 24 hours**
- **Fast drying—can receive floor coverings after 15 days at 75mm**
- **Rapid early strength development**
- **Pre-packed for ease of use**
- **Pre-packed formulation offers assurance of consistent high performance**
- **Apply as a floating screed from 65mm**
- **Design compressive strength > 40N/mm² after 28 days**
- **Suitable for screed pumps**

Description

RonaScreed Pre-packed Fast Drying Underfloor Heating Screed is a pre-packed screeding product used to quickly reduce the moisture content of the screed, to allow faster application of floor coverings. Rapid strength gain permits early access by following trades. RonaScreed Pre-packed Fast Drying Underfloor Heating Screed must be covered with a floor finish. Ronacrete technical department should be consulted about suitable Ronafix products if no floor finish is to be applied.

RonaScreed Pre-packed Fast Drying Underfloor Heating Screed is typically applied at a minimum thickness of 65mm for domestic and 75mm for commercial floors. RonaScreed Pre-packed Fast Drying Underfloor Heating Screed should be applied by competent screeding contractors. RonaScreed Pre-packed Fast Drying Underfloor Heating Screed can be purchased and laid by non-licensed screeding contractors.

Drying Time of 75mm screed

15 days

75%

Physical Properties

Compressive Strength

1 day

23N/mm²

28 days

44N/mm²

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

Yield and Coverage

Pack Size

25kg

Packs required per m² @ 65mm

6.5 packs

Packs required per m² @ 75mm

7.5 packs

Yield per pack

10 litres

Packs required per m³

100 packs

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Product Performance

Determination of Thermal Output (35°C)

| water flow litre per minute | v _V feed water °C | v _R return water °C | v _i standard room °C | v _{F,m} average surface °C | q thermal output Wm ⁻² |
|--------------------------------|------------------------------------|--------------------------------------|---------------------------------------|--|---|
| 1.0 | 35.1 | 31.7 | 20.0 | 25.2 | 60.8 |
| 2.0 | 35.1 | 32.9 | 20.0 | 25.7 | 63.7 |
| 3.0 | 35.2 | 33.8 | 20.0 | 25.9 | 66.0 |
| 4.0 | 35.1 | 34.1 | 20.1 | 25.9 | 66.1 |

Determination of Thermal Output (45°C)

| water flow litre per minute | v _V feed water °C | v _R return water °C | v _i standard room °C | v _{F,m} average surface °C | q thermal output Wm ⁻² |
|--------------------------------|------------------------------------|--------------------------------------|---------------------------------------|--|---|
| 1.0 | 45.2 | 39.6 | 19.8 | 28.9 | 102.5 |
| 2.0 | 45.2 | 42.1 | 20.0 | 29.9 | 107.7 |
| 3.0 | 45.2 | 43.1 | 20.0 | 30.2 | 110.0 |
| 4.0 | 45.1 | 43.6 | 19.9 | 30.4 | 111.4 |

The above results were obtained through tests carried out using a 2m x 2m test bed at a thickness of 40mm (20mm cover over the top of the pipes). Pipe spacing *T* set at 200mm and thermally decoupled with 50mm thickness expanded polystyrene λ 0.036 Wm⁻¹K⁻¹.

The above test results have been carried out in line with **BS EN 1264-2 'Water based surface embedded heating and cooling systems—Part 2: Floor Heating: Prove methods for the determination of the thermal output using calculation and test methods'**

Drying

When applied at 75mm thickness, RonaScreed Pre-packed Fast Drying Underfloor Heating Screed will achieve 80% RH at the surface of the screed after 8 days and 75% RH after 15 days when cured at 20°C and 60% relative air humidity.

Poor drying conditions such as; low temperature, high humidity and insufficient air movement will delay drying. The screed should be covered with a polythene curing membrane for at least 24 hours, drying commences when the membrane is removed. The relative humidity at the surface of the screed should be measured with a hygrometer before proceeding to lay floor coverings, see BS 8203.

Damp Proof Membrane

Drying concrete must be covered with a suitable polythene membrane or coated with RonaScreed DPM surface damp proof membrane.

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Instructions for Use

Preparation

The insulation on which the RonaScreed Pre-packed Fast Drying Underfloor Heating Screed is being placed must be suitable for floating floor screeds and for the thickness of screed to be laid.

Joints

Position isolation joints in doorways and around all perimeters and openings in the screed. Expansion joints for heated screeds 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. If there are separate heating zones, they should be divided by expansion joints. Screed bay joint proportions should ideally be 1:1 length to width and should not exceed 1.5:1. Long narrow bays should be avoided because of the risk of stress relief cracking.

Mixing

RonaScreed Pre-packed Fast Drying Underfloor Heating Screed should be mixed for approximately 3 minutes using a forced action mixer, such as Baron or CreteAngle. Pre-mix the powder component and slowly add all of the gauging liquid. Failure to add all the gauging liquid will affect strength gain and drying. RonaScreed Pre-packed Fast Drying Underfloor Heating Screed may be pumped using a suitable screed pump. Advice is available from Ronacrete regarding the choice of equipment.

Placing

The screed mix must be well compacted, levelled and finished using a suitable float. Thicker screeds may be applied in two layers, wet on wet to aid compaction. Layers should be of approximately equal thickness. The base layer should be raked after compaction. To ensure satisfactory adhesion the lower layer should be raked to provide a key for the next layer. Should an intermediate layer begin to harden, a priming coat must be applied before application of the next layer.

Curing

The finished RonaScreed Pre-packed Fast Drying Underfloor Heating Screed must be cured for 24 hours with tight fitting polythene. Polythene must be fully sealed to protect the surface of the screed from drying winds and prevent moisture loss. Polythene should be placed as soon as possible after finishing, without damaging the screed. After 24 hours the screed should be air cured. Reasonable care should be taken to avoid exposure of the curing screed to drying winds or high temperatures.

The finished RonaScreed Pre-packed Fast Drying Underfloor Heating Screed must be allowed to cure for 24 hours before being trafficked by foot at 20°C or longer at lower temperatures.

Contractors

Unlike other screeds of a similar nature RonaScreed Pre-packed Fast Drying Underfloor Heating Screed 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.

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Contractors (continued)

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 and specification 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.

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.



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| Ronacrete Ltd, Flex Meadow, Harlow Essex, CM19 5TD, UK |
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| BS EN 13813 Floor Screed |
| Product: RonaScreed Pre-packed Fast Drying Underfloor Heating Screed Reaction to Fire: A2-s1,d0 Release of Corrosive Substances: None Capillary Water Absorption: < 0.40kg / m² . min0.5 Compressive Strength: ≥ C30 Flexural Strength: ≥ F3 Wear Resistance BCA Method: AR3 Dampness Test (headspace): 75% RH at 20C at 15 days 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.