Ronacrete

Technical Data Sheet

RonaFloor SL (Formerly Ronadeck SL)

self-smoothing seamless epoxy resin flooring system

FEATURES

- √ **self smoothing epoxy floor screed**
- √ **high strength**
- √ **decorative**
- √ **good chemical resistance**
- √ **easy to clean**

SPECIFICATION CLAUSES

1. Self Smoothing Epoxy Floor Screed

The self smoothing epoxy floor screed shall be RonaFloor SL by Ronacrete Ltd, telephone +44 (0) 1279 638700. The primer is to be RonaFloor Epoxy Primer. All materials to be applied in accordance with manufacturers instructions.

SUMMARY APPLICATION PROCEDURE

1. prepare surface
2. mix and apply RonaFloor Epoxy Primer
3. mix and apply RonaFloor SL
4. protect
5. traffic

Description

RonaFloor SL is a self-smoothing seamless epoxy resin flooring system. It combines good wear resistant properties with high chemical resistance and a smooth easy to clean gloss finish. RonaFloor SL floors are used in areas subject to foot and vehicle traffic in medium to heavy duty areas where decoration, durability and cleanliness are key requirements.

RonaFloor SL can be applied to a wide variety of building substrates at 2mm - 4mm thick, is waterproof, dustproof and available in a range of colours. The use of A/S Aggregate sprinkled in to the top surface of the wet screed can improve the level of slip resistance.

Advantages

- hard wearing; durable
- good chemical resistance
- self smoothing
- hygienic and easy to clean
- decorative
- easy to apply

Applications

RonaFloor SL provides good abrasion resistance to foot traffic and wheeled vehicles with a smooth easy to clean surface. It can be used in:

- hospitals
- warehouses
- workshops
- engineering areas
- showrooms
- factories
- laboratories
- sports halls
- electronic factories
- food preparation areas
- breweries

Application Procedure

Surface Preparation

To achieve maximum adhesion it is essential that RonaFloor SL is applied to a structurally sound, clean substrate. Remove all loose material from the surface and make good any structural defects (refer to Ronadeck or Monoset data sheet). The surface should be cleaned of grease, oil, dirt, laitance etc by chemical cleaning and/or light grit or shot blasting. It is good practice on such surfaces, new or old, to remove laitance. The surface should then be vacuumed to remove dust and debris.

Substrate Testing

The substrate must have a compressive strength not less than 25N/mm² and a direct tensile pull off strength greater than 1N/mm² after preparation. Substrate moisture content should not exceed 6% when tested with a Protimeter. The surface relative humidity should be less than 75% when measured with a hygrometer.

Uneven surfaces should be levelled prior to the application of RonaFloor SL using an appropriate Ronacrete levelling screed eg. Ronascreed or Ronafix. Please consult the Ronacrete Technical Department for further information.

Chemical resistance

RonaFloor SL has excellent resistance to attack from most organic and inorganic substances. For further information see Chemical Resistance Chart.

Priming

After the surface has been prepared it must be primed. Very porous surfaces may require two coats of primer.

RonaFloor Epoxy Primer

RonaFloor Epoxy Primer is a two part priming system comprising resin and hardener. Mix the total contents of the hardener with the resin and apply at a coverage rate of 0.18kg/m². Allow to cure for between 12 and 18 hours and apply the RonaFloor SL.

Priming

Mix and apply RonaFloor Epoxy Primer onto the prepared substrate at the rate of 0.18kg per m². Leave to dry for 16-24 hours.

Depending on the quality and porosity of the substrate, additional primer coats may be required.

Mixing

RonaFloor SL is a three component system comprising resin, hardener and specially graded aggregates. Mix the complete contents of the resin and hardener in a forced action mixer until a uniform colour then slowly add the aggregate. Mix all components for at least 5 minutes. Incomplete mixing will impair the flow properties of the material; therefore ensure that the product is thoroughly mixed before application.

Application

Pour the mixed RonaFloor SL onto the cured primer and spread with a notched trowel to a thickness of 2-3mm. Ensure all depressions in the substrate are filled. Having achieved the desired levels spike roller the RonaFloor SL to allow any trapped air to escape. It may be necessary to carry out this operation more than once but ensure that the material will fully recover before spike rolling the surface again. Always place adjacent mixes of RonaFloor SL against a wet edge. Note: spiked shoes should be worn.

Slip Resistance

To improve the level of slip resistance broadcast RonaFloor Slip Resistant Aggregate in to the top surface of RonaFloor SL before it loses workability - typically within 30 minutes of laying.

Temperature

The workability and flow characteristics of RonaFloor SL will vary according to temperature. Ideally store, mix and apply at 15-20°C. Avoid using when air and substrate temperatures are below 10°C. At high temperatures (> 25°C) the flow rate will be higher and pot life will be shorter.

RonaFloor SL Curing and Traffic Times

These are dependent upon product, ambient and substrate temperatures and are only given as a guide.

Curing Temperature	10°C	15°C	20°C
Pot life	70 minutes	50 minutes	35 minutes
Foot traffic	38 hours	27 hours	20 hours
Full use	21 days	14 days	7 days

Note

- Do not attempt to lay RonaFloor SL at product, air or substrate temperature below 10°C.
- Do not apply external heat until the RonaFloor SL has firmed up.
- Like most resin systems RonaFloor SL should not be used if the substrate does not have an effective damp proof membrane. If a dpm is required refer to the RonaFloor Epoxy DPM technical data sheet.

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RonaFloor SL - self-smoothing seamless epoxy resin flooring system

RonaFloor SL
To achieve optimum performance and appearance in shade and sheen, store and apply material at a constant ambient temperature, humidity and with the same air movement throughout the project. Avoid storage and application at air, substrate and material temperatures below 10ºC.

Packs should be used in strict batch rotation. Individual areas or rooms should be treated with material from a single batch to avoid the inevitable minor variations in shade resulting from batch manufacture, otherwise matched batches should be used to minimise these variations (an extract from FeRFA Guide To The Specification And Application Of Synthetic Resin Flooring).

Osmotic blistering
In a few cases severe blistering of thin synthetic resin floorings can occur between 3 months and two years after laying. These blisters commonly vary in size from a few mm in diameter up to 100 mm, with heights up to 15 mm. When drilled into or otherwise broken the blisters are found to contain an aqueous liquid under very high pressure. The mechanism of their formation is not fully understood but it is assumed because of their physical state that they are caused by a process of osmosis. Because the mechanism is not fully understood it is not possible to be specific about the steps which should be taken to avoid osmotic blistering. However it is considered good practice to take steps in order to minimise the risk (an extract from FeRFA Guidance Note No 2: Osmosis in Resin Flooring ISBN 0 9538020 5 1).

Note
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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.

Maintenance Cleaning
Clean the cured surface with Ronadeck Cleaners as required. Use Ronadeck GP Cleaner for oil and grease removal and for general cleaning of the entire surface, and Ronadeck HD Cleaner for heavy localised oil and grease removal. Both are solvent free. See data sheet.

Cleaning Tools And Equipment
Clean all tools with RonaFloor SL Cleaner.

Colours
Refer to colour chart available on request.

Storage
RonaFloor SL should be stored unopened between 15˚C and 25˚C in dry warehouse conditions and out of direct sunlight. In these conditions shelf life is approximately 9 months.

Health and Safety
Keep containers closed when not in use. Use barrier creams and protective clothing including gloves and goggles . Any contact with skin should be cleaned with a proprietary cleansing cream. If the product enters the eye, wash with copious amounts of clean water and seek medical advice. Only mix and use in well ventilated areas. In the event of fire use foam, dry chemical or carbon dioxide (CO_2) extinguishers. Flash point is in excess of 100˚C.

Note
This product is a carefully formulated blend of resin, hardener and other chemicals, it is designed to be applied as sold. Any on-site dilution, however small, can affect the physical characteristics of the final finish as well as the application properties and curing times.

The product has been designed to be used as a full pack. Part mixing is not recommended.

Curing Temperature	10˚C	15˚C	20˚C
Pot life	70 minutes	50 minutes	35 minutes
Foot traffic	38 hours	27 hours	20 hours
Full use	21 days	14 days	7 days

Packaging and Coverage

	pack size	coverage kg per m²	coverage m² per kg
RonaFloor Epoxy Primer	4.5kg twin pack	0.18kg per m² per coat	5.56m² per kg per coat
RonaFloor SL	20.5kg	2mm 5.5-6.0m² 3mm 4.0m² 4mm 3.0m²	
Coverage rates based on smooth substrate with medium porosity.			

Physical Properties

Min/max thickness	2-4mm
Compatible damp proof membrane	RonaFloor Epoxy DPM
Optimum application temperature	15˚C—20˚C
Compressive Strength BS6319:Part 2	60N/mm²
Tensile Strength BS6319:Part 7	9N/mm²
Flexural Strength BS6319:Part 3	16N/mm²
Abrasion Resistance	0.01mm classified as “Special Class” as defined in BS8204
Tests carried out at 20˚C.	

Chemical Resistance Chart

Chemical	Chemical Resistance	Chemical	Chemical Resistance
Tap water	R	50% Sugar solution	R
Xylene	S	16% Bleach	R
50% Sodium Hydroxide	R	Toluene	R
White spirit	R	50% Phosphoric Acid	S
25% Ammonia	R	Animal fats	R
50% Sulphuric Acid	R	10% Lactic Acid	S
30% Hydrochloric Acid	R	10% Nitric Acid	R
30% Chromic Acid	R	High Octane Petrol	R
10% Acetic Acid	R	Acetone	NR
Skydrol	R	Engine Oil	R
10%Teepol	R	Methanol	S
NR - Not recommended R - Resistant S - Resistant to spillage only			

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