

**Product Data Sheet** 

# SO RAPIDSET LOW ODOUR

### AMMONIA FREE, RAPID SETTING SMOOTHING COMPOUND

### Description

SO RapidSet, Low odour is a high performance, high tolerance, free-flowing, rapid setting and drying two-part smoothing underlayment. It consists of a powdered component incorporating a blend of high specification cements, graded fillers and additives with a pre-gauged liquid component, which combine to produce a highly polymerised self-levelling underlayment (SLU). SO RapidSet, Low odour is suitable for depths between 2-15mm.

### Uses

Specifically designed for use over a wide variety of subfloors including: concrete, sand and cement, calcium sulphate/anhydrite/hemihydrate screeds, existing cementitious underlayment, damp proof membranes, surface electrical radiant heating systems, flooring grade plywood, flooring grade asphalt, porcelain, ceramic, quarry or terrazzo floors, and moisture tolerant adhesive residues. Decorative floor coverings can be bonded to internal subfloors in as little as 90 minutes after the application of SO RapidSet, Low odour. The protein free formulation means it is ideal for use in biologically sensitive areas. A moisture tolerant formulation makes it suitable for the pre-smoothing of floors prior to the application of surface damp proof membranes (DPM) and moisture vapour suppressants (MVS). Due to its excellent adhesion characteristics, it can be used on most common substrates without the need to prime.

### Features

- Can receive foot traffic in as little as 30 minutes.
- Ready to receive unbonded floor coverings after 45 minutes and bonded floor coverings after 90 minutes.
- Priming not required. \*
- Can be used over most common subfloors, including old adhesive residues.
- UFH compatible.
- Moisture tolerant
- Low odour.
- Protein free.

### British Standard – Guidelines

All aspects of the installation must be in accordance with the requirements of BS 8204, BS 8203 (Installation of Resilient Floorcoverings), BS5385 (Installation of Tiling or BS5325 (Installation of Textile Floor coverings) Compiles with EN standards and supplementary

### Preparation

Preparation Floor surfaces must be suitably prepared: sound, dry (<75%RH); free from dust, contaminants that may impair adhesion, plaster droppings, grease, paint, polish and any water-softenable or loosely adhered materials as these will not have the cohesive strength to support the newly applied underlayment.

Subfloors should be tested in accordance with BS 8203 to ensure a moisture reading of less than 75% RH is achieved. Where this has not been attained or where there is uncertainty that the subfloor design incorporates a Damp Proof Course (DPC), then an epoxy DPM or Moisture Vapour Suppressant (MVS) must be applied (Please contact Lee Floorstok for more information). SO RapidSet, Low odour is moisture tolerant and can be used as a pre-smoothing compound before the application of a DPM.

Highly polished substrates such as power floated concrete, marble, terrazzo or ceramic tiles should be mechanically abraded to provide a suitable mechanical key. Lee Floorstok recommend consultation with subfloor preparation equipment suppliers to ensure the correct equipment for the substrates is selected.

Use a suitable alkali-based cleaning agent for removing grease, oil, polish, soap etc. from non-absorbent substrates. Concrete and sand/cement screeds must be fully cured,

and any laitance or surface treatments must be removed.

The temperature of the floor must be maintained above  $5^{\circ}\mathrm{C}$  throughout the application and drying of the underlayment.

Priming may not be required prior to the application of SO RapidSet, Low odour although it is good building practice to do so.

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#### Specification BS EN 13813: 2002 CT-C16-F4 Screed Classification 10-15 minutes at 20°C Working time Walk on hardness 30 minutes at 20°C Application thickness 2-15mm Ready to receive floor coverings Unbonded: 45 minutes Bonded: 90 minutes Compressive Strengths (BS EN 1 Day: >11.0N/mm<sup>2</sup> 13892-2) 7 Days: >14.0N/mm<sup>2</sup> 28 Days: >16.0N/mm<sup>2</sup> Flexural Strengths (BS EN 13892-2) 1 Day: >3.0N/mm<sup>2</sup> 7 Days: >3.5N/mm<sup>2</sup> 28 Days: >4.0N/mm<sup>2</sup> 20kg bag / 4.6 litre bottle Packaging

-O-O-C

### \*Priming

Absorbent Subfloors (concrete, sand & cement, plywood, etc.): Priming is not required for the purpose of adhesion.

NOTE: To ensure a pinhole free surface is attained priming can be carried out using a suitable primer where this is not important, such as applications of textiles or loose lay laminate flooring, priming may be omitted. Subfloors must be sound, stable, and free from dust, grease and all debris. Any remaining residues should be firmly bonded, hard and not soluble to water. Specific priming requirements are needed for calcium sulphate/anhydrite/Hemihydrate screeds (see Substrate section - Calcium Sulphate/ Anhydrite/Hemihydrate Screeds).

Non-absorbent Subfloors (epoxy resin damp proof membranes, moisture tolerant adhesive residues, flooring grade asphalt, porcelain, ceramic, quarry and terrazzo floors, steel mezzanine decks, access panels, etc.): Priming is not required for the purpose of adhesion, it is also not required with applications to DPM or Suppressant as long as SO RapidSet, Low odour is applied within 12 hours of application and it is trafficable

### Substrates

\*Calcium Sulphate/Anhydrite/Hemihydrate Screeds: Mechanically remove any laitance and provide a sound, clean, dry and dust-free surface. The relative humidity within the subfloor must read below 75% RH prior to the application of a barrier primer (damp proof membranes and moisture vapour suppressants are not recommended). These types of screeds often incorporate warm water underfloor heating systems (see relevant manufacturers' technical datasheet) which can be used, along with dehumidifiers, to speed up the drying process. Manufacturers normally suggest this can be conducted after 7 days minimum curing. Apply A suitable primer diluted 3:1 with clean water and allow to fully dry overnight. Apply a second coat diluted 1:1 with clean water allowing it to dry (usually 1-2 hours).

Flooring Grade Asphalt: New asphalt must be left for a minimum of 7 days and degreased to remove surface bloom. Existing asphalt should be assessed for cracks. If cracks are present, they need to be repaired to give a continuous strong subfloor. The use of epoxy resins bulked out with sand is normally sufficient.

Non-flexing Steel Floors (e.g. mezzanine decks): Mechanically abrade using a suitable mechanical machine (STG or shot blast)) or a wire brush to give an abraded shiny corrosion free surface and remove all excess traces of metal.

Flooring Grade Plywood: SO RapidSet, Low odour is suitable for use over many plywood substrates provided the plywood is mechanically fixed and of suitable thickness. Normally plywood that has been in-situ for many years will be stable and suitable for application. Newly installed flooring grade plywood (e.g. SP101) must be mechanically fixed to a sound strong base.

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Pre-smoothing of Subfloors: Where there is an absence of a DPC, pre-smoothing can be carried out provided there is no risk of hydrostatic pressure and all previous materials have been removed to leave the cementitious base. If in any doubt, please apply DPM directly to the original subfloor. Pre-smoothing is not suitable over old adhesive residues.

Surface DPM and MVS: These are considered as non-absorbent substrates. Applications should be carried out within 12 hours of DPM and/or a Suppressant application.

Radiant Electrical Underfloor Heating Systems: Cables must be secured to a sound, strong, mechanically fixed cement faced backer board. It may also be used where electrical underfloor heating is used over cementitious or calcium sulphate subfloors (see Calcium Sulphate Screed Section). In all cases SO RapidSet, Low odour m u s t be applied at a thickness of 5mm above the cables for resilient, textile and timber applications, and a minimum of 3mm for application of stone, ceramic or porcelain products.

### Mixing

Shake the pre-gauged bottle of liquid prior to opening. Pour the entire contents of the liquid into an oversized bucket (20 litres or more capacity).

Gradually add the powder whilst continually mixing using an electric drill fitted with a power whisk, suitable for use with cementitious materials. After completely adding the powder, continue mixing for a further 2 minutes, keeping the whisk below the surface of the product to minimise air entrainment, until a lump free creamy material is attained. SO RapidSet, Low odour should only be mixed as single units. Never add further liquid or water.

### Application

Pour onto the floor and spread with a smooth edge steel trowel. SO RapidSet, Low odour has exceptional flow characteristics, but a spiked roller may be used to further improve the finish, particularly between adjacent units of product. Only spike roll whilst the product is still in its fluid state, typically up to 10 minutes after application.

### Curing and drying

All curing and drying times are based on good site conditions i.e. an air temperature of 20°C, air humidity of 65% RH and good ventilation. Sites that are cold, humid or damp or in areas where the airflow is poor, will prolong drying and curing times, so allowances should be made accordingly. Applications to non-absorbent substrates and at thicker application depths will take longer to dry.

NOTE: Avoid strong drafts and direct sunlight during curing. SO RapidSet, Low odour is ready to receive light foot trafficking normally after 30 minutes, based on 3mm thick application.

### Cleaning

Tools should be thoroughly cleaned in water to remove excess materials immediately after use.

### Storage

Powder: Store in a dry place at temperatures between 5°C and 30°C.

Liquid: To be kept out of direct sunlight and should be always stored at temperatures above  $5^{\circ}$ C. If allowed to freeze, UltraFloor cannot guarantee product performance.

### Health, safety and Environmental

Please ensure that appropriate PPE is used when preparing, mixing and applying products. Always wash hands before consuming food and make sure that materials are kept safely out of reach of children and animals. Please dispose of packaging and waste responsibly and in accordance with local authority requirements.

The relevant Material Safety Data Sheet can be obtained from: Leefloorstok Limited Manchester: 0161 231 8080 Liverpool: 0151 708 7241

Applied Thickness	Coverage Per Unit	Consumption Per 100m <sup>2</sup> Area
3mm	5.0m <sup>2</sup>	20 units
5mm	3.0m²	34 units
15mm	1.0m²	100 units

Coverage is for guidance only based on a smooth, non-absorbent subfloor. Substrate texture and absorbency can affect consumption variations. As with all raw materials, colour variation may occur. Please note that this does not affect the consistency or characteristics of the product.

### Shelf Life

If stored correctly and used within 8 months of the date shown on the bag, the reducing agent activity will be maintained and this product will contain, when mixed with SO RapidSet, Low odour liquid, no more than 0.0002% (2ppm) soluble Chromium (VI) of the total dry weight of the cement. Shelf life in correctly sealed bags is 8 months. Please note: the use of this product after the end of the declared storage period may increase the risk of allergic reaction.

Liquid: A minimum of 12 months when stored between 5°C and 30°C.

### Site conditions

Ambient air and floor temperatures directly influence the drying characteristics of cementitious smoothing underlayment. Cement within the smoothing underlayment cures through a process of hydration using moisture. Extreme site conditions can affect this process, i.e. below 5°C and above 30°C. Ideal ambient air and floor temperatures for application are between 10°C and 22°C. These temperatures should be maintained throughout application and curing periods. Outside of these temperatures, consideration should be given to the following guidelines for good practice. Floor temperatures will be slower to respond to ambient air temperature so should be considered in advance. High humidity and low temperature prolong evaporation of moisture from the freshly applied smoothing underlayment and therefore extends drying times. This may ultimately delay the installation of floor coverings. In such conditions, planned heating (not gas heating) may be required before, during and after application of the product to promote ideal site conditions. Heat should be directed into the air, not direct to the floor creating hot spots. Good ventilation without direct drafts will also assist removal of moisture in the air from the building. Failure to adopt such practices in such adverse site conditions may result in damp patches, slow drying and potential surface bleed within the curing smoothing underlayment. Low humidity and high temperature conditions will speed up drying by fast removal of moisture from freshly applied smoothing underlayment. Such conditions may cause rapid loss of moisture, required for the curing process, leading to irregular structure and strength build up. Such tensions within the drying smoothing underlayment could leave hairline surface defects. Under such conditions, smoothing underlayment should be protected from direct sunlight and drafts across its surface. Good airflow within the build without causing drafts is essential to reduce high temperature build up.

### **Quality Assurance**

All products are manufactured in a plant whose quality management system is certified / registered as being in conformity with BS EN ISO 9001, ISO 14001 and ISO 45001. Our products are guaranteed against defective materials and manufacture and will be replaced or money refunded if the goods do not comply with our promotional literature. We cannot however accept responsibility arising from the application or use of our products because we have no direct or continuous control over where and how projects are used. All products are sold subject to our conditions of sales, copies of which may be obtained upon request.