

Surefloor

Chemical and Wear Resistant Flooring and Surface Coating System Technical Data Sheet



Effective: September 2016

Description

Surefloor is a single component, 100% solids, solvent free floor coating system. It can be applied to give a highly effective anti-slip finish as well as very smooth high gloss finishes where required. **Surefloor** in either form delivers an extremely durable abrasion, impact and chemical resistant surface. **Surefloor** is UV stable. The properties of **Surefloor** create optimal conditions to resist the growth and accumulation of bacteria on the easy to clean surface of the coating. Also, the ability to apply the product at low temperatures with little effect on curing time is setting new industry standards.

At junctions **Surefloor** used in conjunction with **Smarttech** Fabric creates a monolithic surface, leaving no crevices for the collection of contamination or bacteria.

Uses

Surefloor is successfully used on the floors of:

- Cold Rooms & Cold Storage warehouses
- In food handling and food processing rooms, e.g. Abattoirs, Bakeries, Supermarket Prep. Areas, Restaurants and Commercial Kitchens
- Clean rooms in electronic manufacturing, medical facilities and laboratories.
- Showrooms
- Workshops and Garages.

Substrates

- Concrete & Masonry
- Glass, Ceramic & Ceramic tiles
- GRP Panels (Glass Reinforced Polyester)
- Wood *
- Metal (including Stainless Steel)

Advantages

Surefloor offers the following advantages:

- 1-component, no mixing
- Ready to use
- Solvent free
- Containers can be resealed for future use
- Can be applied to damp surfaces
- Seamless, monolithic surface

- No joints
- No fissures or crevices for bacteria or germs to lodge
- Odourless – allowing application in close proximity to food products
- Fast curing from below freezing.
- After curing it is resistant to most acids and alkalis, most petroleum solvents animal fats, blood and aggressive cleaning chemicals with 70°C hot water pressure rinsing.
- Contains no isocyanates, reducing health concerns
- Adheres to most building surfaces without priming

Colours & Finishes

White, Grey, RAL Yellow, Red, Blue and Green Safety colours and Clear as well as natural coloured quartz sand finishes. Solid colours as well as Coloured quartz finish are available in anti-slip or high gloss depending on desired surface use. Additional colours available upon request.

Note: *Slight variations in colour can occur between batches.*

Application

Surface Preparation

Surfaces must be sound, clean, free of dust and loosely adhering particles, all traces of corrosion, oil and fats. Mildew and algae must be removed with bleach solution.

Concrete and masonry surfaces should ideally not have a moisture content above 8%. Surfaces should be free of laitance and efflorescence as well as any other deposits that may interfere with the bond to the concrete or masonry.

Before applying **Polarcoat**, surfaces must be lightly abraded and wiped down with a cleaning fluid such as denatured alcohol or other appropriate cleaning method ensuring that no oils, fats or other residue remain. **Surefloor** must be gently stirred before use, taking care not to entrain air as this will create air bubbles in the coating which may form small craters on curing. Should this occur allow the product to stand with the lid in place for between 5 and 10 minutes to allow air to escape.

Priming

Metal, Concrete and Masonry, Glass or Ceramic generally require no priming. On wooden surfaces, only where tannin bleed may be expected, or on concrete or other surfaces where contamination might cause staining, prime surface with **SMART Block**. This will prevent the new application from becoming stained. For questions about substrates contact our customer service.

Application Instructions

At all junctions between panels, dissimilar substrates, pipe or conduit penetrations and at plane junctions, apply **Smarttech** Fabric to reinforce these locations.

Apply a moderate coat of **Surefloor** by brush or roller symmetrically over the joints covering approximately 50mm each side of the junctions (e.g. panel joints, floor to wall sealing). Lay in the 100mm wide fabric symmetrically over the joint and imbed using a brush or roller. Make sure that no bubbles or creases appear in the fabric. At the same time apply a moderate coat of **Surefloor** over the entire area to be treated. Allow to become touch dry (about 1 hour at 0°C and quicker at higher temperatures and relative humidity).

Smooth Solid Colours

Once touch dry the first general coat is applied over the entire floor area at approximately 0.25l/m² and allow to dry. Apply a second moderate coat over the entire area again, at approximately 0.25l/m². This will complete the monolithic finish of the floor surface.

Anti-slip Finish

Apply first general coat at approx. 0.25l/m² and immediately broadcast with coloured quartz or kiln dried silica sand into wet surface (for application techniques contact our technical department). Allow to cure at least 1 hour and vacuum or sweep away excess sand. For coloured quartz finishes apply a moderate coat of **Surefloor** Clear at 0.3l/m² and allow to cure. For solid colour anti slip application apply a second coat of the base colour used, over the silica sanded surface at 0.3l/m² and allow to cure.

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Smooth High Gloss Coloured Quartz

Follow anti slip procedure from previous paragraph and apply a subsequent generous coat of **Surefloor Clear** to achieve glossy finish. For a mirror like finish another coat may be applied if desired. A clear mirror like finish on solid colours can also be achieved by adding a coat of **Surefloor Clear**.

Floors will be walkable in 2 hours.

Floors where motor vehicles are likely to park, a final coat of SMART Block is advised to prevent staining from tyres.

Application Conditions:

Ambient Temperature: -10°C to 45°C

Surface Temperature: -10°C to 50°C

Do not apply over frozen matter!

Coverage:

The coverage of **Surefloor** will vary depending upon thickness and finish chosen for the application as well as porosity of substrate. Some guidelines are:

Smooth Solid Colour

Smooth substrates 0.5 l/m²

This includes total coverage for both coats.

Anti-slip Solid Colour

Smooth substrates 0.55 l/m²

This includes total coverage for both coats.

Anti-slip Quartz Finish

Smooth substrates.

Surefloor (colour) 0.25l/m²

Surefloor (clear) 0.3 l/m²

Smooth Quartz Finish

Surefloor (colour) 0.25 l/m²

Surefloor (clear) 0.6 l/m²

Total for two coats of Clear

Curing Times:

Touch dry after 1 hours at 0°C and 50% RH

Trafficable after 2 hours at 0°C and 50% RH

Fully cured after 14 days

Type	Solvent Free 1- component Synthetic Polymer
Shelf life and Storage conditions	unopened 12 Months, Storage Temp. +5 to 32°C
Application Temperature	-10°C - 45°C (Ambient) -10°C - 50°C (Surface) Application possible at -23°C with special conditions. Contact technical department.
Total Thickness (Smooth Surface)	0.5mm
Total weight	1.5kg/l
Water vapour Permeability ASTM E-96	24x10 ⁻⁸ g.s ⁻¹ .m ⁻² .Pa ⁻¹ (4.2 perms) @ 0.5mm thick
Drying Time (touch dry)	1 hours at 0°C and 50% rel. humidity
Trafficable	Lightly walkable at 2 hours at 0°C and 50%RH
Full Cure	after 14 days
Taber Abrasion ASTM D-4060-14	Wear Index I=58 @1000cycles
Spread of Flame BS476-7:1997	Class 1
Anti Skid BS7976-2 Pendulum Test (Using Smarttech Standard Quartz Sand)	PTV Dry 72 and PTV Wet 63 ("Low Risk" floor values are greater than 36)
Coverage	Check specific application in "Coverage" text above Caution: Surface unevenness & absorbency will consume more product to achieve desired thickness
Container Size / Article	Packaging
Surefloor Colours	3.5 litre pail (Special Colours upon request)
Surefloor Clear	3.5 litre pail
Smarttech Fabric	100mm x 90m roll
Smarttech Coloured Quartz Sand	25kg bags
Smart Block Matt Sealer	3kg Kit

Resistance to Chemicals

Chemical resistance tests show that cured **Surefloor** is resistant to many solvents, acids and alkalis like

- Diesel

- Acetone
- Butanol
- White spirits
- Sulphuric Acid 5%
- Hydrochloric Acid 5%
- Sodium hydroxide 5%
- Animal Fats and Blood
- Commercial cleaning chemicals

It is advisable to allow 48 hours cure before subjecting surfaces to aggressive cleaning chemicals.

Cleaning

Uncured **Surefloor** can be removed with Denatured Alcohol. Cured **Surefloor** can only be removed mechanically.

Storage

Unopened containers:

12 months from manufacture date.

Opened Containers:

To lengthen storage time, fill headspace above Surefloor with nitrogen gas and immediately replace lid securely. Shake closed container gently before storing.

Caution:

Carefully read the Safety Data Sheet for **Surefloor** before use. Avoid contact with eyes and skin as this may cause irritation. Should contact with eyes occur rinse for 15 minutes under running water. If swallowed do not induce vomiting and seek the advice of a doctor.

Important Notice:

Please always consult our website at www.smarttechcoatings.co.uk to check that you are reading the most up to date data on this product.

Note:

The information contained in this technical data sheet is based upon our experience and is therefore not binding. All data are laboratory values, which may differ in practice. Therefore, these represent no assurance of characteristics. This data is given in order to allow compliance with respective local specificities. The variety of possibilities and the specific project details in combination with the products cannot be handled within the framework of this data sheet. If you have questions, please contact us. It is the user's responsibility to be informed about the characteristics of the products as well as the technical information and proper processing. Please take careful note of all manufacturers' specifications, e.g. information on surface pretreatment.. A specific result cannot be guaranteed due to differing prevailing individual conditions, which can lead to differing result. Preliminary tests are advised to test for the desired result.