Technical Data Sheet

Surecote 200 Hi-Build Epoxy Coating System

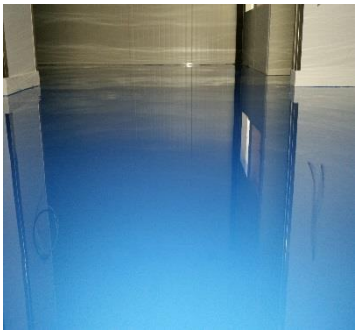
DESCRIPTION:
Surecote System 200 is a two pack hi-build epoxy coating system suitable for application to a wide variety of floor substrates; usually concrete but including timber & steel.

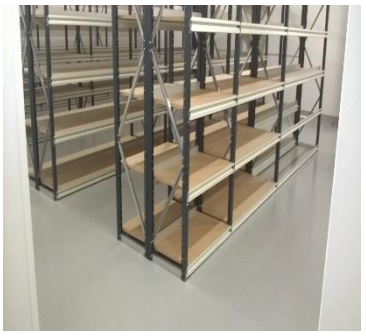
TYPICAL FEATURES | BENEFITS:

- **Solvent free, no odour.**
- Good filling properties to smooth out pitted floors to give an even appearance**.**
- The normal system is a 1mm film build in a one or two coat application.
- Can be applied at >2mm for badly pitted floors.
- Very good abrasion and scuff resistance.
- Good flow properties to help even out imperfections.
- Tolerant of application to a slightly damp surface.
- Finish reduces glare and reflection.
- Excellent resistance to a wide variety of chemicals and petroleum products – refer to chemical resistance chart.

Note
Thin film epoxy coatings, e.g. Terratuff, achieve a much lower total film thickness but still need a two - three coat application.

Surecote System 200 combines economy with film thickness to achieve that desired monolithic appearance.





COLOURS:
Surecote 200 stocked colour is N35 light Grey.

Surecote 200 is available in many colours in the standard: BS5252F http://www.allnexconstruction.com/pdf/BS5252_ColourChart.pdf
: AS2700 http://www.allnexconstruction.com/pdf/Colour_Chart_AS2700_S_2011.pdf

RAL colours & special colours are also available.

PERFORMANCE DATA:

Minimum Application Temperature: Air	$^{+}$10°C
Maximum Application Relative Humidity: Air	85%
In-service temperatures:	$^{-}$20 to $^{+}$55°C
Fire properties: Critical radiant flux: TEST METHOD ISO-9239-1	9.1 Kw/m²
Slip resistance:	with added non-slip aggregates, (see later)
Chemical Resistance	Resistant to chemical spillage –cured 7 days at 25^{0}c. Refer: Chemical resistance literature.

RECOMMENDED USES:

- Ablution areas.
- Bulk retail.
- Construction and Mining Industry.
- Chemical and Oil Industry.
- Food processing facilities.
- Hospitality.
- Healthcare.
- Pharmaceutical and Cosmetics: Clean rooms:
  - seamless smooth hygienic floors
- Refineries.
- Residential garages and workshops.
- Retail and display areas: Vehicle showrooms | studios
- Sewerage treatment plants.
- Silos.
- Slip- resistant floor finishes.
- Warehouses.
- Pulp and Paper mills.

LIMITATIONS:

- Application below $^{+}$10^{0}C. This will impede the flow, application and curing.
- Application to green (uncured) concrete. Will tolerate damp concrete.
- Application to unsound substrates.
- Application to incorrectly prepared surfaces.
- Weathering/UV - Some chalking will occur in time but will maintain good film integrity.
  - Some yellowing will occur.

HEALTH & SAFETY: Refer safety data sheets (SDS).

- Avoid skin contact.
- Wear safety equipment.

SUBSTRATE:

All substrates shall be stable and solid.

Concrete: New

Shall have a surface which has been mechanically trowelled to AS3610:1995 U3/NZ/3114:1987U3 finish.
Concrete shall be cured for a minimum of 28 days prior to the installation of the Surecote 200.
Minimum Compressive Strength at 28 days cure: 25 MPa. (25 N/mm^{2})
The moisture content shall be less than: 75% RH.
Have a suitable vapour resistant membrane beneath the concrete.

Concrete: Old

Minimum Compressive Strength: 25 MPa. (25 N/mm^{2})
The moisture content shall be less than: 75% RH.
Have a suitable vapour resistant membrane beneath the concrete.

****Note****

If the substrate is an above grade slab and waterproofing is required to comply with NZBC E3, consult with allnex Construction Products.

QUALITY ASSURANCE:

The allnex Licensed Contractor shall ensure all QA checks have been undertaken <u>prior</u> to the installation process and subsequently during the installation process. The completed documentation must be made available to allnex and the client/clients authorised personnel.
The product is to be installed within the required control range to ensure a fully cured hard wearing monolithic floor topping system.
Information to be recorded daily is:

- Concrete sub-base or prefill mix.
- Material batch numbers used.

- Sequence of mixing, ratios and quantities and formula.
- Substrate moisture content & Substrate temperature.
- Ambient temperature | Ambient relative humidity.
- Daily detail of licenced contractors on-site.

PRODUCT PROPERTIES:

Pot Life	+14^{0}C ~75%RH +18^{0}C ~75%RH +25^{0}C ~75%RH	80 minutes 70 minutes 55 minutes
Touch Dry	+14^{0}C ~75%RH +25^{0}C ~75%RH	5.2 hours 3 hours
Recoat time ~ Minimum ~ Maximum	+25^{0}C ~75%RH	 4 hours 6 hours
Cure Time	+20^{0}C ~75%RH	6 hours
Viscosity cps	3000	
SG kg/litre	1.56	
Solids Content	100%	
Thinning	Maximum 5% Solvent HA	
Clean Up	Solvent HA	
Dangerous Good Class ~ Surecote 200 Resin ~ Surecote 200 Hardener	 Hazard Class 3 | Packing Group II Hazard Class 8 | Packing Group I	
Packaging ~ Surecote 200 Resin ~ Surecote 200 Hardener	<u>16 litre Unit</u> 12 litre 4 litre	
Shelf life	12 months from date of manufacture. (After this period consult with allnex)	

SURFACE PREPARATION:

Concrete:

Prepare concrete by mechanical abrasion method to:- ***CSP4-5*** (Concrete Surface Profile Scale - International Concrete Repair Institute)
See technical literature:- http://www.allnexconstruction.com/pdf/Floor_Preperation_Requirements.pdf
Remove all concrete curing agents, contaminants and any other material likely to affect the adhesion of the Surecote 200.
Do not apply over existing coating without checking compatibility (compatible with most 2 component coating systems). However over coating is not likely to be successful without strong, coarse sanding or abrasion.
Prefill any large divots with allnex K125 or Epoxy Fairing Cream and diamond grind to remove any highpoints or contaminants.

COVES:

Where required:
See technical literature – Details:- http://www.allnexconstruction.com/pdf/Details_resin-floor-toppings.pdf
Install Coves:

- Small Pencil Coves: Supaset | Supascreed |Sureshield
- Other Coves: Supascreed |Sureshield

Install allnex cove upper termination metal strips: **5.2mm or 9.2mm rebated strip**.
Use a rebated wall cut if the coving strip cannot be used.
Install fibreglass CSM cloth in floor/wall internal junctions. (Required on surfaces other than Concrete upstands)

STZ PREFILL: (for adding falls, slope modification and floor angles)

Where required:
STZ prefill system types: See STZ technical literature. http://www.allnexconstruction.com/pdf/stz_prefill.pdf
The falls must be specified pre-tender. (Surecote 200 is medium build floor coating and prefill may involve significant extra materials).
The quantities of materials required to raise the floor height at wall perimeters is often underestimated. To do this may involve significant extra costs and should be discussed and agreed. It is a very common for STZ prefill system to be used under Surecote 200 to create falls to drains and other filling applications. Normally for new work falls are laid in the concrete and fall to drains. However in refurbishment the drains and falls are incorrect. Sometimes new drains are installed. The Prefill create falls of at least 1: 50 to ensure no ponding water. (1:100 will fall but will have standing water in places).

SURECOTE SYSTEM 200: KIT SIZE AND COVERAGE:

UNFILLED

Part A	12 litres
Part B	4 litres
Mix Total - litres	16 litres
Mix Coverage:	1mm ~ 1 litre /m^2 = 16m^2/ Kit
	2mm ~ 2 litres/m^2 = 8m^2/ Kit
	3mm ~ 3 litres/m^2 = 5.33m^2/ Kit
	4mm ~ 4 litres/m^2 = 4m^2/ Kit

FILLED

Part A	12 litres
Part B	4 litres
Part C - Filler	12 litres = 19.2kg SG: 1.6kg/litre
Mix Total - litres	28 litres
	3mm ~ 3 litres/m^2 = 9.33m^2/ Kit
	4mm ~ 4 litres/m^2 = 7.00m^2/ Kit

SURECOTE 200 MIXING:

Mix Ratio: ***By volume*** - unfilled

Resin - Part A	3 parts
Hardener - Part B	1 part

Mix Ratio: - With Filler

Resin - Part A	6 litres
Hardener - Part B	2 litres
Filler - Part C	6 litres = 9.6 kg SG: 1.6kg/litre

PRIMING:

** If required on weak or porous concrete**

Use Supascreed Primer (**Solvent Free**) Apply evenly at 5-6m²/Lt.

Allow to fully dry before application of the Surecote 200 system.

Alternative Primer:

Dilute Surecote 200 with Solvent HA (6 parts to 1 part and use that as a primer).

Note

This alternative primer option will no longer be solvent or odour free

MIXING METHOD:

Add complete contents of Surecote System 200 Resin (Part A) and Surecote System 200 Hardener (Part B) to a suitable container. Power mix at low speed (approximately 300rpm) for 2 minutes ensuring both compounds are homogeneously blended and the colour is uniform. Scrape the pail sides with a long broad-knife and then mix again. Mix slowly to avoid air entrapment.

****Note****

Ensure no unmixed materials remain on the sides, rims or lips of the containers.

APPLICATION METHOD:

Roller | Brush | Trowel | Notched Trowel or notched rubber squeegee.

Pour onto the prepared and primed surface and spread evenly using the appropriate method. Normally apply in one coat only over the primed surface. Take care to ensure the specified thickness of application by calculating material quantities and methods of application. Work with a team of applicators to mix, transport to the workface, apply and finish to keep a wet edge transitioning to a natural floor break. Use a spiked roller as required to assist with levelling and to reduce air bubbles. Isolate access to prevent people and wind-blown dust and dirt affecting the finish.

****Note Well****
If the Surecote 200 is required to be applied at less than 1mm, then Solvent HA may be added (5% by volume). This will allow the coating to be applied in the range 0.5 – 1.0mm. This addition will also increase the working time (easier to apply). However the monolithic visual effect will be reduced, shrink-back will occur and the system will clearly no longer be solvent or odour free. Solvent thinning is a not a usual process.

SLIP RESISTANT FINISHES:

Rating	Non-slip Media	Quantity m^2	Application
R10	Microcells	2.78 grams	Mixed into kit - applied in first coat ~ 500 grams per 16 litre Kit
R10	J61 Sand	2 kg	Broadcast into first wet coat
R11	K20s sand	2 kg	Broadcast into first wet coat
R12	K20s |18/36 aggregate 50/50 blend	2 kg	Broadcast into first wet coat
R13	7/14 aggregate **More aggressive non-slip can be achieved with 16 grit Aluminium Oxide.	2 kg	Broadcast into first wet coat

OVERGLAZE - CLEAR ** OPTIONAL**
Over glaze can be advantageous where chemical staining may occur.
Over glaze with one coat of allnex Revathane non-yellowing polyurethane (Refer: Revathane technical data).
Over glazes are not commonly required.

******Caution******
When over glazing; severe mechanical abrasion is required to obtain the required inter-coat adhesion parameter.

JOINTS:
All concrete control and construction joints should be carried through the Terratuff using allnex K130 Epoxy or PU40 sealant.

MAINTENANCE:
Repairs:
Chemically clean.
Mechanically abrade surface.
Repair any divots with allnex K125 or Fairing Cream.
Apply Surecote 200 as per “Installation instructions”.

CLEANING:
Smooth Surface:
Conventional floor cleaning procedures are normally adequate to maintain clean and hygienic surface.

Non-slip Surface:
Mopping may **not** adequately remove dirt and grime from the surface profile of the Surecote 200. We therefore recommend the use of a soft bristled broom in conjunction with the cleaning solution.

**** Note****
Ensure all detergent materials, dirt etc. is thoroughly rinsed from the surface following cleaning.

FIXING OF PLANT AND MACHINERY:
Mechanical fixings into the floor must be resin fixed. This is to ensure that there is no water migration into the substrate.
Conventional expanding plugs, screws or anchors <u>are not</u> an acceptable fixing method.

CHEMICAL RESISTANCE CHART:

Test procedure: ~ Aqueous Solution applied to the surface of test samples. - Solutions are Aqueous unless otherwise stated

Results: ~ Taken after 7 days cure @ $^{+}25^{0}C$

Test Media	Concentration		Test Media	Concentration
ACIDS			**ALKALIS**	
Hydrochloric Acid	20%		Caustic Soda	30%
Sulphuric Acid	30%			
Acetic Acid	5%			
Nitric Acid (dilute)				
Lactic Acid			**SOLVENTS**	
Phosphoric Acid			Toluene	
Tannic Acid				
Lactic Acid				
Phosphoric Acid (dilute)				
Tannic Acid				
PETROCHEMICALS			**DISINFECTANTS & CLEANERS**	
Kerosene			Ammonia Solution	20%
Aviation Fuel			Iodine and chlorine based sanitizers	
Lubricating Oil				
Petrol /Diesel				
Fuel Oil				
OTHERS				
Hot Water			**SALT SOLUTION**	
Food Emulsions			Sodium Chloride	50%

Note:

The table represents a guide only. Variables which may under extreme conditions, influence the chemical or corrosion resistance are:

- Temperature of chemical concentration.
- Intermittent or continuous contact.
- Application in adverse conditions.
- Risks of evaporation from spillage causing concentration to rise adversely.

****Note****

Chemical spillages should be cleaned up immediately.

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