

Technical Data Sheet

Date: August 2015 Replaces: Feb 2014



Surecote 200 High-Build Epoxy Floor Coating

GENERIC TYPE: A two-pack coloured epoxy floor coating system. Surecote System 200 floors give a smooth finish with excellent wear resistance. It is designed for commercial and industrial applications.

TYPICAL PROPERTIES/ FEATURES: Surecote 200 is a hi-build epoxy coating system suitable for application to a wide variety of floor substrates; usually concrete but including timber &, steel.

- **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. Thin film epoxy coatings, eg Terratuff, achieve a much lower total film thickness but still need a three coat application. Surecote 200 combines economy with film thickness to achieve that desired monolithic appearance.
- For badly pitted floor it can be applied at 2mm.
- Excellent resistance to a wide variety of chemicals and petroleum products – refer to chemical resistance chart.
- Very good abrasion and scuff resistance.
- Good flow properties to help even out imperfections.
- **Solvent free, no odour**
- Tolerant of application to a slightly damp surface.
- Finish reduces glare and reflection.



Odour: Very low odour, No solvents (unmodified)
Cure Time: Overnight at 20°C; full hardness 48hrs
Minimum Application Temperature: 10°C
In-service temperatures: -20 to 55°C

Fire properties: Critical radiant flux: 9.1 Kw/m² ; TEST METHOD ISO-9239-1
Slip resistance R9, R10 and R11 with added slip aggregates, see later

Colours: Surecote 200 is available in many colours in the standard BS5252F, AS2700 and RAL colours (refer to Nuplex colour chart). Special colours are available.

Australia
A Division of Nuplex Industries Limited
www.nuplexconstruction.com.au

New Zealand
Auckland

A Division of Nuplex Industries (NZ) Limited
T: +64 9 5836544 F: +64 9 5253709

This information appearing in this Document (Details) concerning the product which is the subject of the Document (Product), is either based on present technical knowledge and tests done by Nuplex or tests done by, and data supplied from third parties including you, the customer. Since the actual use by you and by others of the Product is beyond the control of Nuplex, no warranty or representation, express or implied is made by Nuplex regarding the suitability for such use, nor does Nuplex accept any liability arising out of the use by you of other products or materials, whether third party or not, that may be referred to in this Document. Nuplex recommends that you carry out your own tests as to the suitability of the Product for your purpose, regarding which you accept full responsibility. In addition, if any of the Details appearing in the Document are based upon tests done by, and/or data supplied by any third party, Nuplex provides no warranties or representations in connection with those Details and you, the customer waives any right you may have against Nuplex in connection with the accuracy, completeness or otherwise of the Details. The information in this Document is not to be construed as absolutely complete or accurate since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations affecting use of the Product. Nuplex does not provide any warranty or representation to you that the Product does not infringe the intellectual property rights of any third party. All orders accepted shall be subject to the standard conditions of sale of Nuplex, which are on the back of our invoice. In accepting the Product you, the customer acknowledge and agree:

- The Product is or may be of a hazardous nature and that you, the customer, are responsible for the disposal of the container housing the Product in accordance with the requirements and regulations of the relevant supervising government.
- The Product has a limited shelf life and must be stored strictly in accordance with the guidelines and specifications related to it.
- Where the Details relate to Product tested by Nuplex, those Details are indicative only, regarding which there may be batch-to-batch variation.
- Nuplex gives no warranty or representation as to the applicability for the particular use by you, the customer, of the Product and you the customer shall be responsible for ensuring that the Product is fit for your intended use.
- Nuplex's liability for breach of any term, condition, guarantee or warranty (express or implied and concerning the information in this Document or the Product more generally) including any liability for direct or indirect consequential loss (including indirect loss of profits), is limited to the maximum extent permitted by law and, at Nuplex's election, to either replacing or repairing the goods or paying the cost of replacing or repairing the goods, or in the case of services, supplying the services again.

www.nuplexconstruction.co.nz
FreePhone 0508-882288

ncpsales@nuplex.com
FreeFax 0508553344

SUGGESTED USES: Surecote 200 has good resistance to a wide variety of chemicals with no fumes and is ideal for use in industrial, commercial, domestic, retail environments.

Applications include:

- Retail shops and commercial applications
- Pulp and Paper Mills
- Refineries
- Seamless, smooth hygiene floors
- Sewerage Treatment plants
- Food processing plants; food storage
- Vehicle workshops
- Construction and mining industry
- Warehouses
- Retail and display areas; vehicle showrooms, studios
- Ablution areas
- Residential garages and workshops
- Chemical and oil industry
- Silos
- Pharmaceutical & cosmetic clean rooms; smooth hygienic finish.
- Slip resistant floor finishes

NOT RECOMMENDED:

- Application below 10°C. This will impede both the flow, application and curing.
- Application to incorrectly prepared surfaces.
- Application to green (uncured) concrete. Will tolerate damp concrete
- Application to unsound substrates.

CHEMICAL RESISTANCE:: Resistance to chemical spillage (cured 7 days at 25°C)

- Ammonia solution (20%)
- Sulphuric Acid (30%)
- Hot water
- Aviation fuels
- Petrol / Diesel
- Tannic acid
- Food emulsions
- Lubricating oil
- Caustic soda (30%)
- Kerosene
- Lactic acid (5%)
- Sodium chloride (50%)
- Fuel oil
- Hydrochloric acid (20%)
- Acetic acid (5%)
- Toluene
- Nitric acid dilute
- Iodine and chlorine based sanitizers
- Phosphoric acid, dilute

Note:

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

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

SAFETY PRECAUTIONS:

(During application)

- Avoid skin contact.
- Store away from children.

Refer materials safety data sheet.

SURFACE PREPARATION: Prepare concrete by acid etching, shot blasting or grinding. 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 overcoating is not likely to be successful without strong, coarse sanding or abrasion. Prefill any large divots with K125 epoxy mortar and grind any highpoints or contaminants. VACCUM.

PRIMING: (if required on weal or porous concrete), Use Supascreed primer at 5-6m²/Lt. This primer is solvent free. Allow to fully dry (turns clear from white) before application of the Surecote 200 system. Alternatively, dilute Surecote 200 with Solvent HA (6 parts to 1 part and use that as a primer).

MIX RATIOS: see table

NB: Note to contractor: Four hardener systems are available: Slow set (hot conditions), Normal set (mid range temperatures) and fast set (cold curing conditions). Also Hydroflor CLEAR hardener. Choose the hardener that suits the conditions at the time of application. The temperature of the materials, the floor and the environment will all effect the curing time.

MIXING METHODS:

Add complete contents of Surecote 200 Resin (Part A) and Surecote 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.

NB: ensure no unmixed materials remain on the sides, rims or lips of the containers.

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 (more 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 tinning is a not a usual process.

	Surecote system 200 3:1 mix ratio Pack size: Resin 12 Lts in a 20Lt metal container, Hardener 4lts in a 4lt metal tin.			Surecote 200 Clear ** Clear version only mix ratio
Hardener type. #1	Fast	Medium	Slow (Main grade)	
Mix ratio	3 resin + 1 hard.	3 resin + 1 hard.	3 resin + 1 hard.	3 Resin + 2 parts hardener. Kit packs: 12 kg Surecote 200 CLEAR plus 1 x 8kg HYDROFLOR CLEAR hardener B Total : 20 kg mix size
Viscosity, cps	3000	3000	3000	
Consistency #2	Thicker	Thicker	Thicker	
SG kg/Lt	1.56	1.56	1.56	
Pot life (useable time), (mins) 14 °C		45	80	
Pot life (useable time), (mins) 18 °C		30	70	
Pot life (useable time), (mins) 25 °C		25	55	
Touch dry (hrs) @14 °C		3.5	5.2	
Touch dry (hrs) @25 °C		2	3	
Cure time (hrs) @20 °C		5	6	

#1 Hardener type.

If the temperatures are at or above 12°C and the environment is isolated and there are no demands for rapid set, then choose the **slow hardener** as the slow set time gives more control, more levelling and less risk of brush marks.

APPLICATION METHOD:

PRIMING (if required on weal or porous concrete), use a solvent diluted version (as in the mixing section above).

Roller, brush, 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. Get it right first time! 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 roll as required to assist with levelling and to reduce air bubbles.

A mixed 1lt will cover 1m² at 1mm thick. Isolate access to prevent people and wind blown dust and dirt affecting the finish.

One mixed litre per m² will give a 1mm film build. This rate gives the best combination of pit filling, smoothness and uniform appearance. The 16lt kit will cover 16m² @ 1mm thick.

May be applied more heavily or more thinly if diluted.

Normally applied by roller in two coats at 0.5sqm / lt / coat.

SLIP RESISTANT FINISHES: Slip resistant finishes can be achieved using:

Approx Application Weight

Microcells (ceramic sphere) 500 grams per 16 lt kit. **Note:** Microcells are mixed in with product and the roller applied. Alternatively dried fine sand (j61) can be carefully broadcast as a non-slip additive) This is coarser than microcells.)

To achieve specific ratings: (these are estimated rates based on experience)

R10: Apply Microcells @ 500 grams per 16lt Kit

R11: Apply K20s sand @ 1 kg per m² into the first coat

R12: Apply a blend of K20s and 18/36 into the first coat

R13: Apply 7/14 coarse into the first coat; more aggressive non-slip can be achieved with 16 grit Aluminium Oxide.

OVERGLAZE (CLEAR) (OPTIONAL): Overglaze can be advantageous where chemical staining may occur. Overglaze with one coat of Nuplex Revathane non-yellowing polyurethane (refer technical data).

Overglazes are not commonly required.

FILM BUILD:

(Theoretical) Normally 1mm, may be applied more heavily (1-3mm); (or thinner: 0.5-1.0mm if solvent added).

CLEAN UP: Nuplex Solvent HA (flammable)

Cure time 6+ hours:

Colours:

LIGHT GREY N35, NEUTRAL GREY N23, KOALA GREY N45, BLUE GREY N53, LEAD GREY N55, FAWN X34 (Driftwood), NEUTRAL TINT BASE, CURTAIN CALL, WHITE.

SURECOTE SYSTEM 200 CLEAR. PI us special colours made to order.



Koala Grey N45



Neutral Grey N23



Light Grey N35



Driftwood X34



Blue Grey N53



Lead Grey N55