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.

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**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 affect 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
<table>
<thead>
<tr>
<th>3:1 mix ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pack size: Resin 12 Lts in a 20Lt metal container, Hardener 4lts in a 4lt metal tin.</td>
</tr>
</tbody>
</table>

### Surecote 200 Clear
** Clear version only mix ratio

<table>
<thead>
<tr>
<th>Hardener type. #1</th>
<th>Fast</th>
<th>Medium</th>
<th>Slow (Main grade)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mix ratio</td>
<td>3 resin + 1 hard.</td>
<td>3 resin + 1 hard.</td>
<td>3 resin + 1 hard.</td>
</tr>
<tr>
<td>Viscosity, cps</td>
<td>3000</td>
<td>3000</td>
<td>3000</td>
</tr>
<tr>
<td>Consistency #2</td>
<td>Thicker</td>
<td>Thicker</td>
<td>Thicker</td>
</tr>
<tr>
<td>SG kg/Lt</td>
<td>1.56</td>
<td>1.56</td>
<td>1.56</td>
</tr>
<tr>
<td>Pot life (useable time), (mins) 14°c</td>
<td>45</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Pot life (useable time), (mins) 18°c</td>
<td>30</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>Pot life (useable time), (mins) 25°c</td>
<td>25</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Touch dry (hrs) @14°c</td>
<td>3.5</td>
<td>5.2</td>
<td></td>
</tr>
<tr>
<td>Touch dry (hrs) @25°c</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Cure time (hrs) @20°c</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

#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. Pl us special colours made to order.