

0657 NUPLEX RESIN BASED FLOORING**1 GENERAL****1.1 RESPONSIBILITIES****General**

General: Apply resin based floor finishes to substrates, as documented, that satisfy the product performance requirements for the stated warranty life.

1.2 COMPANY CONTACTS**Nuplex technical contacts**

Website: www.nuplexconstruction.com.au/?q=node/41

1.3 CROSS REFERENCES**General**

Requirement: Conform to the following:

- *General requirements.*

[complete/delete]

1.4 MANUFACTURER'S DOCUMENTS**Technical manuals**

Website: www.nuplexconstruction.com.au/

Information available: Technical Data Sheets, Material Safety Data Sheets and selection guidance.

1.5 INTERPRETATION**Definitions**

General: For the purposes of this worksection the definitions given below apply.

- Resin based seamless floor finish: Any combination of a resin based flooring system that combines two pack resins, with or without an aggregate, to provide a continuous floor coating without joints except those that may already exist in the substrate.
- Substrate: The building element to which the finish is applied.

1.6 INSPECTION**Notice**

Inspection: Give sufficient notice so that inspection may be made of the following:

- Completion of substrate preparation.
- Completion of each coat in the flooring system.
- Completed application.

1.7 SUBMISSIONS**Samples**

Resin based flooring generally: Build up a sample for each finish selected, on a fibre cement base, showing the thickness of each coat, the colour and aggregate arrangement.

Size: 300 x 300 mm minimum.

Identification

Labelling: Label each sample, giving brand, product name, and manufacturer's code reference (including the code for each coat of multi-coat work).

Prototype in situ sample

Location: [complete/delete]

Size (mm): [complete/delete]

Tests

Test results: Submit the following:

- Slip resistance site test to completed surfaces to AS/NZS 4663.
- Critical radiant flux and smoke development rate type tests to AS ISO 9239.1.

Subcontractors

General: Submit names and contact details of proposed suppliers and applicators.

Nuplex Construction Products approval of applicator requirement: [complete/delete]

Materials and components

Manufacturer's data: Submit the Nuplex Construction Products published product data for each type of finish, and recommendations for its application in the project, including the following:

- Composition, thickness, finish and time between coats for multi-coat work.
- Material Safety Data Sheets.

2 PRODUCTS

2.1 GENERAL

Critical radiant flux

Standard: To AS ISO 9239.1.

Flooring system: Conform to the values of critical radiant flux nominated in **Selections**.

Smoke development rate

Standard: To AS ISO 9239.1.

Floor finishes in non-sprinklered buildings: 750 percent-minutes.

2.2 MARKING

Identification

General: Deliver materials to the site in the manufacturer's original sealed containers legibly marked to show the following:

- Manufacturer's identification.
- Product brand name.
- Product type.
- Quantity.
- Product reference code and batch number.
- Date of manufacture.
- Material composition and characteristics such as volatility, flash point, light fastness, colour and pattern.
- Handling and installation instructions.

2.3 COLOUR

Colour selection

From the colour chart: Refer to the colour charts applicable to the following products:

- **Qualipur™**.
- **Nuthane™**.

From the Australian Standard: Select colours for all other products supplied by Nuplex Construction Products from AS 2700.

2.4 SEAMLESS FINISHES

Nuplex resin flooring selection guide:

<http://www.nuplexconstruction.com.au/files/NuplexResinGuide.pdf>www.nuplexconstruction.com.au/files/NuplexResinGuide.pdf

Delete applications not required. Document selected applications in **Selections**.

General description

Product	Finish type	Description	Typical resins	Coats	Aggregates	Thickness

Product	Finish type	Description	Typical resins	Coats	Aggregates	Thickness
Surecote™ 200 primer/sealer	Roller or spray applied	Concrete seal, clear or coloured	Epoxy	1 or 2 1 st : 10 m ² /l 2 nd 12 m ² /l	None	< 150 dry µm/coat
Creteseal AP	Roller or spray applied	Concrete seal, clear	Acrylic	1 or 2 1 st : 6 m ² /l 2 nd 9 m ² /l	None	100 – 150 dry µm
Creteseal WB Nano	Brush or spray	Concrete seal, clear	Water based acrylic and polyurethane	2 - 3 16 m ² /l each	None	
Aquaseal	Roller or spray applied	1. Concrete sealer, clear. 2. Admixture for repair mortars, tile adhesives or grouts.	Water based epoxy	1 st : 6 m ² /l 2 nd 8 m ² /l	None	To suit application. Refer to product data sheet.
Surecote™ 200 Standard	Roller applied	General floor coating	Epoxy 100% solids	1 st : 3.5 m ² /l 2 nd 5 m ² /l	As required if non slip	300 – 500 dry µm
Surecote™ 200 HS	Roller or spray applied	Low VOC floor coating	Epoxy 85% solids	1 st : 5 m ² /l 2 nd 8 m ² /l	As required if non slip	200 to 400 dry µm
Surecote™ 200 HS Novalac	Roller applied.	High chemical resistance	Epoxy 85%-95% solids	1 st : 5 m ² /l 2 nd 8 m ² /l 3 rd 8 m ² /l	As required if non slip	200 to 400 dry µm
Surecote 200 FG	Roller applied	Easy application low odour workshop finish	2 part epoxy 100% solids	1 st : 4 m ² /l 2 nd 5 m ² /l	As required if non slip	300 to 500 dry µm
Surecote 220 MS	Roller or spray applied	Economical workshop finish	2 part epoxy	1 st : 6 m ² /l 2 nd 8 m ² /l	As required if non slip	200 to 300 dry µm
Qualipur™37 2	Roller or spray applied	Internal abrasion resistant /waterproof floor coating	Polyurethane internal top coat	152 primer or 252 w'proof membrane @ 0.4 l/m ² 372 top coat 0.4 l/m ²	As required if non slip	< 1000 µm
Qualipur™46 1	Roller or spray applied	External abrasion resistant /waterproof floor coating	Polyurethane external top coat	152 primer or 252 w'proof membrane @ 0.4 l/m ² 461 top coat 0.4 l/m ²	As required if non slip	1000 µm

Product	Finish type	Description	Typical resins	Coats	Aggregates	Thickness
RapidFloor	Roller applied	Rapid cure internal or external abrasion resistant/waterproof floor coating	Rapid cure internal or external abrasion resistant /waterproof floor coating	RapidFloor MMA Primer $\leq 6 \text{ m}^2/\text{l}$ RapidFloor MMA $\geq 3 \text{ mm}$ thick RapidFloor MMA Topcoat $\leq 5 \text{ m}^2/\text{l}$	Mixed into the resin system	3 mm minimum
RapidShield 0007 Clear	Roller or squeegee	High gloss abrasion resistant clear coat	Epoxy 100% solids	1st: $6 \text{ m}^2/\text{l}$ 2nd $8 \text{ m}^2/\text{l}$	None	
RapidShield 0008 High Build	Roller or squeegee	High gloss abrasion resistant clear coat	Epoxy 100% solids	1st: $6 \text{ m}^2/\text{l}$ 2nd $8 \text{ m}^2/\text{l}$	None	
RapidShield Colours	Roller or squeegee	High gloss abrasion resistant coating, coloured	Epoxy 100% solids	1st: $6 \text{ m}^2/\text{l}$ 2nd $8 \text{ m}^2/\text{l}$	None	
Revathane	Roller applied	High gloss abrasion resistant clear coat	Aliphatic polyurethane, non-yellowing.	1 st : $6 \text{ m}^2/\text{l}$ 2 nd $9 \text{ m}^2/\text{l}$	As required if non slip	100 to 200 dry μm
Surecote™ 200 Standard	Spread and sprinkle	Non slip general floor coating, coloured	Epoxy 100% solids	1 st + aggregate, 2 nd + aggregate, and 3 rd coat.	As required if non slip	1.0 – 1.5 mm
Surecote™ 200 HS	Spread and sprinkle	Non slip general floor coating, coloured, low VOC	Epoxy 85% solids	1 st + aggregate, 2 nd + aggregate, and 3 rd coat	As required if non slip	1.0 – 1.5 mm
Surecote™ 500 resin	Spread and sprinkle	Non slip general floor coating, clear	Epoxy	1 st + aggregate, 2 nd + aggregate, and 3 rd coat	Coloured glass aggregate	1.0 – 1.5 mm
Surecote 500 Kitchen Grade	Spread and sprinkle	Non slip general floor coating, clear	Epoxy	1st + aggregate, 2nd + aggregate, and 3rd coat	Coloured glass aggregate	4.0 – 6.0 mm
Surecote™ 300 SL	Self levelling (self smooth)	Smooth high gloss finish, easy to clean	Epoxy	1 st SC 200 primer 2 nd SC 500 resin 3 rd SC 300 SL	None	2 – 4 mm

Product	Finish type	Description	Typical resins	Coats	Aggregates	Thickness
Sureshield™	Trowel applied coating	Chemical resistant coating for heavy use	Polyester with styrene solvent	1 st SS primer 2 nd SS body 3 rd SS sealer	Mixed into the resin system	8 mm
Sureshield™ VE	Trowel applied coating	Heavy use, wider range of chemical resistance	Vinyl ester with styrene solvent	1 st SS primer 2 nd SS/VE body 3 rd SS/VE sealer	Mixed into the resin system	6 – 8 mm
Surecote™ 500	Slurry and broadcast	Medium use, uniform non slip appearance, gloss	Epoxy	1 st SC 500 slurry with additional aggregate broadcast	Mixed into the resin system	4 – 6 mm
Surecote™ 500 AR 3	Slurry and broadcast	Medium use, uniform appearance, acid resistant, gloss	Epoxy	1 st SC 500 AR, additional aggregate broadcast	Mixed into the resin system	4 – 6 mm
Nuthane™ SB	Slurry and broadcast	Medium use, wider range of chemical resistance, fast cure, non slip	Polyurethane	1 st Epoxy primer 2 nd Nuthane™ additional aggregate broadcast 3 rd top coat	Mixed into the resin system	4 – 8 mm
Architectural Terrazzite™	Synthetic terrazzo, high colour, fast cure	Internal public spaces, e.g. Malls, Foyers	Polyester	1 st primer 2 nd trowel applied 3 rd sealer coat 4 th five polish coats	Decorative marble mixed into the resin system	8 – 10 mm, 7 – 8 mm after grinding
Architectural Terrazzite™ Mode E	Synthetic terrazzo high colour, low VOC	Internal public spaces, e.g. Malls, Foyers	Epoxy	1 st epoxy primer 2 nd trowel applied 3 rd sealer coat 4 th five polish coats	Decorative marble mixed into the resin system	8 – 10 mm, 7 – 8 mm after grinding
Architectural Terrazzite ZV	Synthetic terrazzo high colour, low VOC	Internal public spaces, e.g. Malls, Foyers	Solvent free resin system	1 st ZV primer 2 nd trowel applied 3 rd sealer coat 4 th five polish coats	Decorative marble mixed into the resin system	8 – 10 mm, 7 – 8 mm after grinding

Product	Finish type	Description	Typical resins	Coats	Aggregates	Thickness
Terraflake™	Seamless flake flooring, abrasion resistant	Internal spaces	Epoxy primer + Revathane polyurethane Topcoats	1 st SC 200 + flakes, 4 top coats Revathane polyurethane	Decorative vinyl paint flakes. Glass beads may be added for non-slip properties.	800 – 1000 µm
Hydroflor™	Seamless flake flooring, low VOC	Internal spaces schools, hospitals	Epoxy	1 st SC 200 + flakes + 2 top coats SC 200 clear non yellowing epoxy	Decorative vinyl paint flakes. Glass beads may be added for non slip properties	800 – 1000 µm

3 EXECUTION

3.1 PREPARATION

Substrates

General: Ensure substrates conform to the **Substrate tolerance table** and are clean and free of any deposit or finish which may impair adhesion or location and functioning of movement joints.

Substrate tolerance table

Property	Length of straight edge laid in any direction	Max. deviation under the straight edge
Flatness Class A	3 m	3 mm
Smoothness	150 mm	1 mm
Projections	50 mm	0.5 mm

Cleaning concrete surfaces: Mechanically remove the following surface treatments:

- Sealers and hardeners.
- Curing compounds.

Concrete substrate correction: Remove projections and fill voids and hollows with a reinforced mortar or a polymer modified cementitious self smoothing and levelling compound recommended by the finish manufacturer as compatible with the seamless flooring system.

Moisture content: Do not commence installation unless:

- Concrete: The moisture content of the concrete has been tested to AS/NZS 2455.1 Appendix B and the values in clause 2.4.2 (c) have been obtained.

Substrate preparation – new concrete

Roller or spray applied, spread and sprinkle, self levelling and flake flooring systems:

- High pressure water blasting and/or acid etching.
- Diamond grinding.

Substrate preparation – over existing sound tiles

Architectural Terrazzite™: Shot blast the surface and apply a fibreglass membrane with a laminating resin.

3.2 APPLICATION

Proprietary floor systems

Standard: To the product technical data sheets at www.nuplexconstruction.com.au.

Working environment

General: Do not start work before the building is enclosed, wet work is complete and dry, and good lighting is available. Protect adjoining surfaces.

Temperature: Do not install seamless flooring if the temperature of the substrate is $\leq 8^{\circ}$ or if the air temperature is $\geq 36^{\circ}$.

3.3 JOINTS AND ACCESSORIES**Coves**

Masonry floor and wall substrates: Form a coved fillet from a resin mortar mix as follows and apply the resinous floor coating:

- Radius: [complete/delete]
- Height: [complete/delete]

Applied coving: Provide a proprietary coved skirting as follows:

- Product: [complete/delete]
- Radius: [complete/delete]
- Height: [complete/delete]

Junctions

General: Finish junctions flush with adjoining surfaces. Where changes of floor finish occur at doorways locate the joint on the centreline of the closed door leaf.

Seamless flooring junctions

Junction type: [complete/delete]

Product: [complete/delete]

Accessories

Accessory type: [complete/delete]

Product: [complete/delete]

Movement joints

Location: Provide movement joints as follows:

- Over structural (isolation, contraction, expansion) joints.
- At junctions between different substrates.

Flooring: Where possible carry the seamless finish material over the edges of the control joint in the substrate. Provide a sealant joint as follows:

- Sealant width: 6 – 25 mm.
- Sealant depth: One half the joint width, or 6 mm, whichever is the greater.
- Sealant: Two-pack self-levelling non-hardening mould resistant polyurethane sealant applied over a backing rod. Finish flush with the tile surface.
- Trafficable floors: Shore hardness > 35 .
- Backing rod: Compressible closed cell polyethylene foam with a bond-breaking surface.

Product: [complete/delete]

3.4 COMPLETION**Protection**

General: Keep traffic off finished work for 48 hours or as indicated by the applicator, whichever is the greater.

Reinstatement

Extent: Repair or replace faulty or damaged work. If the work cannot be repaired satisfactorily, replace the whole area affected.

Warranties

Form: Contact Nuplex Construction Products.

Product: [complete/delete]

Application: [complete/delete]

Maintenance manual

General: Submit the Nuplex Construction Products published use, care and maintenance requirements.

4 SELECTIONS

4.1 SCHEDULES**Concrete sealers**

Product: [complete/delete]

Colour: [complete/delete]

Location: [complete/delete]

General floor coating – roller or spray applied

Product: [complete/delete]

Aggregate: [complete/delete]

Slip resistance: Wet pendulum to AS/NZS 4586: [complete/delete]

Colour: [complete/delete]

Critical radiant flux: [complete/delete]

Location: [complete/delete]

General floor coating – spread and sprinkle

Product: [complete/delete]

Aggregate: [complete/delete]

Slip resistance: Wet pendulum to AS/NZS 4586: [complete/delete]

Colour: [complete/delete]

Critical radiant flux: [complete/delete]

Location: [complete/delete]

Self levelling finish

Product: Surecote™ 300 SL.

Colour: [complete/delete]

Critical radiant flux: [complete/delete]

Location: [complete/delete]

Trowel applied coatings

Product: [complete/delete]

Aggregate: [complete/delete]

Slip resistance: Wet pendulum to AS/NZS 4586: [complete/delete]

Colour: [complete/delete]

Critical radiant flux: [complete/delete]

Location: [complete/delete]

Slurry and broadcast coatings

Product: [complete/delete]

Aggregate: [complete/delete]

Slip resistance: Wet pendulum to AS/NZS 4586: [complete/delete]

Colour: [complete/delete]

Critical radiant flux: [complete/delete]

Location: [complete/delete]

Synthetic terrazzo

Product: [complete/delete]

Aggregate: [complete/delete]

Proprietary sealer/polish: [complete/delete]

Slip resistance: Wet pendulum to AS/NZS 4586: [complete/delete]

Colour: [complete/delete]

Critical radiant flux: [complete/delete]

Location: [complete/delete]

Seamless flake flooring

Product: [complete/delete]

Flakes: [complete/delete]

Proprietary sealer/polish: [complete/delete]

Aggregate: [complete/delete]

Slip resistance: Wet pendulum to AS/NZS 4586: [complete/delete]

Colour: [complete/delete]

Tactile indicators: [complete/delete]

Critical radiant flux: [complete/delete]

Location: [complete/delete]
