

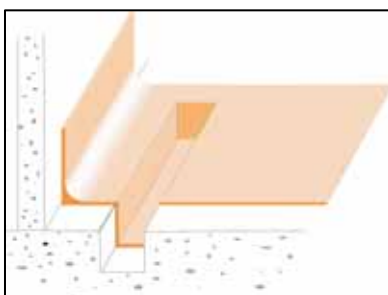
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SURESHIELD ZV Commercial floor Topping - Odourless

DESCRIPTION:

Sureshield ZV is an commercial grade floor topping system specifically designed for the food industry. Sureshield ZV resin is blended with specially graded silica quartz aggregates to produce a floor system that is hard and durable, Non-slip, resistant to impact, abrasion, thermal shock and common cleaning and food chemicals yet is non porous, seamless, hygienic and easily cleaned. Sureshield ZV is fully bonded to the concrete to prevent water creep. **NO Odour, Rapid hardening Floor topping. (variant of standard Sureshield)**

TYPICAL PHYSICAL PROPERTIES/ FEATURES:



- Sureshield ZV is a commercial monolithic 8-9mm thick floor topping.
- **ZERO odour product. This system negates the issues of smell sometimes encountered with standard Sureshield.**
- Rapid Cure: Full system may be installed within a 8hr period.
- Excellent chemical resistance. See chart.
- Excellent abrasion resistance Excellent impact resistance:
- Excellent adhesion to properly prepared substrates.
- Easily cleaned. See comments at end. Waterblast resistant.
- Excellent slip resistance. Confirm degree required in specification.
- Steel trowel Finish: 0.46 ASTM3661.1
- Glass Float Finish: 0.58
- Aggregate Finish: 0.73
- Able to be formed into coving, plinths, sumps etc.
- Good resistance to thermal shock. When cured, will perform at all normal in-service temperature ranges. ie. Operational Freezers to hot & boiling water applications, as well as steam cleaning.
- Fire Resistant: AS/ISO 9239.1-2003: Non-directional.
Critical Heat / Radiant Flux: 6.5Kw/m²; Smoke Value: 379 Kw/m²
- Will not support bacteria or fungal growth. Contains STERISHIELD to retard microbial growth. See Tech bulletin.
- Cured film is non-toxic. Not moisture permeable.
- Moisture absorption: 0.04% as per ASTM D570-63
- Flexural strength: 25Mpa
- Weight per m² @ 8mm thickness: 17-18kgs
- Co-efficient of expansion 2.23 x 10⁻⁵/C between 20°C and 60°C when heated at 1°/minutes.
- Minimum thickness: 8mm, nominal 9mm
- Minimum application temperature: +5°C
- Colour: Natural Gold; or other colours dependant on aggregate selection, or the system may be tinted for full thru-colour permanence. (see website)

RECOMMENDED USES:

- Odour sensitive areas
- Freezers, chillers, coolstores
- Ablution blocks, laundries. Supermarkets: Bakeries, Fish, Meat, deli etc
- Commercial kitchens, delis, fish process, bakeries, butcheries.
- loading bays & laundries
- Toilets, changing rooms, sports facilities for hard-wearability.
- Floors, walls, upstands, plinths etc where a high degree of chemical, mechanical and slip resistance is of prime importance.

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NUPLEX CONSTRUCTION PRODUCTS WWW.NUPLEXCONSTRUCTION.CO.NZ
 PO Box 1 2841, Penrose, Auckland Telephone: 0-9-579 2029, Fax: 0-9-525 3709, Email: bpdsales@nuplex.co.nz

H A M I L T O N	P A L M E R S T O N	N O R T H	W E L L I N G T O N	C H R I S T C H U R C H
Telephone: 0-7-847 8658	Telephone: 0-6-353 3685	Telephone: 0-4-477 7040	Telephone: 0-3-366 6802	
Fax: 0-7-847 3766	Fax: 0-6-353 3632	Fax: 0-4-477 7039	Fax: 0-3-379 0279	

SURESHIELD ZV (cont'd)

- Food process floors where a high degree of hygiene is required.
- Interior/exterior use. Concrete repair and protection – resurfacing damaged or broken concrete with a more physical and chemical resistant surface.
- Can be applied to new or existing sound concrete, timber or other surfaces.
- Suitable for use in dry or wet situations including ramps.
- Will form coves to any required height or radius.
- Floors above work spaces: Sureshield ZV forms a watertight barrier and is compliant with E3 Internal water 3.1.1.e. (use full fibreglass laminated floor and Joint safe tape in these situations).

******Note******

Special treatments may be required on some ramps in wet situations in order to comply with slip resistance requirements of AS/NZ 3661.1:1993. Specific advice must be sought from Nuplex Industries Ltd, Construction Products Division prior to specifying in this situation. See page 1

LIMITATIONS:

- Application to uncured concrete (minimum recommended cure 28 days). Application to damp surfaces. (Refer to Nuplex Bulletin on application options on wet or uncured concrete).
- Application to unstable or defective substrates without approved remedial treatment prior to installation.
- Application below +5C.
- Application over existing coatings/toppings – refer to Nuplex.
- Over concrete cure or release agents without Nuplex approval.
- Over ceramic tiles without specific written Nuplex design specification.
- Use SUREHIELD STANDARD for heavy duty hot and chemical environments. Refer to Nuplex chemical resistance data.
- Special hardener systems and training required.

CHEMICAL RESISTANCE CHART 2009

Test procedure involves total immersion of the polymerized sample in a test medium at 25 Deg C. The sample were observed for chemical attack and hardness throughout the testing period. The results below were taken after 3 weeks exposure:

Test Media	conc.	Sureshield ZV
ACIDS		
Acids	10%	M
ALKALIS		
Caustic Soda	10%	M
Caustic Soda	50%	D
SOLVENTS		
Ethanol		M
Toluene		A
Acetone		D
Isopropanol		U
PETROCHEMICALS		
Kerosene		U
DISINFECTANTS & CLEANERS		
Detergent (DET 18)	100%	U
Bleach (2.5% Sod Hyd Cl)		M
SALT SOLUTION		
Brine	20%	U

OTHERS		
Sugar Syrup	30%	U
Distilled Water		U

LEGEND

U = Unaffected (i.e. after 3 week exposure the samples have not changed)

M = Marked (Short term exposure, the test media will leave a mark on the sample)

A = Attacked (Short or long term exposure, the mechanical properties will deteriorate)

D = Destroy (Short or long term exposure, damage will occur)

All substrates shall be stable and solid.

SUBSTRATES

Note: The ability of new or existing floors to take the loads as a result of the Nuplex Sureshield ZV must be checked prior to installing. All control joints junction cracks in the substrate etc are to be properly treated .

Nuplex Industries should be consulted when installing Nuplex Sureshield ZV on any suspended floor slabs.

CONCRETE

Shall have a surface which has been mechanically trowelled to AS3610:1995 U3/NZ/3114:1987U3 finish or . Then preparation is achieved by captive shot blasting or other coarse abrasive methods. Eg Diamond grinding.

Concrete shall be cured for a minimum of 28 days prior to laying Sureshield ZV . The moisture content shall be less than 75% RH. (Refer Nuplex Bulletin on application options on wet or uncured concrete).

Plywood or Timber: consult Nuplex for information

Note: If the substrate is an above grade slab and waterproofing is required to comply with NZBC E3, the tank the floor and cove upstands with a layer of 450gsm CSM fibreglass. This will provide a seamless waterproofing layer.

Ensure the floor is clean, dry and prepared as above.

Install Nuplex **cove** upper termination metal strips: **5.2mm, 8.8mm or 9.2mm rebated strip** are available (see separate details drawings). Use a rebated wall cut (see details) if the coving strip cannot be used.

Install fibreglass CSM cloth in floor wall internal corners.

PREPARATION

APPLICATION:

Prime the properly prepared floor areas with minimum one coat of ZV Primer. Coverage rate and number of coats will vary depending on the porosity of the substrate, Maximum coverage 6m²/litre/coat. ZV Primer and ZV Hardener systems are to be thoroughly mixed in the correct proportions (1-3% on STZ Primer weight).

Wait until ZV Primer has gelled/set before overcoating.

Nuplex Sureshield ZV must be applied in such a manner to achieve a minimum 8mm thickness. Use screed box, bars or install angle strips as a guide. Accurately weigh and power mix until homogeneous Nuplex Sureshield ZV Resin and ZV Hardener system in the correct proportions:

Nuplex Intafloor Resin 8.4kgs
Nuplex ZV Hardener system **Pre-promote with 1% Cobalt solution & catalyse with min 1.5% M100 type catalyst. (refer to Nuplex specific data on promoting and catalysing).** Increase levels for thin films to ensure prompt cure; and decrease levels for thicker films to avoid exotherm. Ensure pre-trials are done on site in site conditions. The thickness and ambient and floor temperature has a large effect on the cure profile.
(on Sureshield ZV Resin weight).

Add selected Nuplex Blended Sand at the ratio:

Floors - Nuplex STZ Floor Sand	50kgs
Coves - Nuplex STZ Cove Sand	50kgs

Note: Pre-mix hardener system to resin prior to adding the STZ flooring mix. Maximum Sureshield ZV Resin:Filler (sand) ratio 1:6 parts by weight Resin, Hardener and Sand are to be blended in an efficient mixer to ensure all ingredients are homogeneously blended but not aerated.

Apply Nuplex Sureshield ZV flooring to correctly prepared and sealed substrate using a spreader box and/or a suitable glass, steel trowels, power float etc. Ensure the matrix is well compacted and free of ridges or unevenness. Successive mixes must be homogeneously blended together into wet Nuplex Sureshield ZV mixes. Trowel with a combination of steel float and compact with a Nuplex glass float. Adequate lighting is to be provided to ensure defective surface finishing can be easily identified and corrected during the installation process Clean tools and equipment used during the installation with sparing quantities solvent to avoid scratches and odour.

Use Acetone only outside the work area to clean tools and equipment.

NON-SLIP floor definitions: The contractor shall ensure that the surface finish, in all zones, is agreed with the client and samples supplied and agreed.

1. Smooth –steel trowel floated.
2. Non-slip & Hardwearing – glass float.
3. Heavy duty non-slip – glass float and the broadcast 18/36 non-slip aggregate into the wet surface. Follow this with roller applied topcoat.
4. Very sharp non-slip: glass float and the broadcast 18/36 mixed 50/50 with Silicon carbide non-slip aggregate into the wet surface. Follow this with roller applied topcoat.
5. Ensure the contractor supplies info on the above. and a cured sample showing the surface finish.

Ensure all finished edges of the Nuplex Sureshield ZV are supported to avoid damage. Nuplex Sureshield ZV may be applied to skirtings, coves and upstands if required with the use of Nuplex STZ Coving Resin and specially formed trowels.

Optional coves and skirtings can be completed as the main floor is installed however they are best installed following installation of the floor. Floors must be protected during cove/skirting installation.

Ensure air movement to ensure a full cure is achieved.

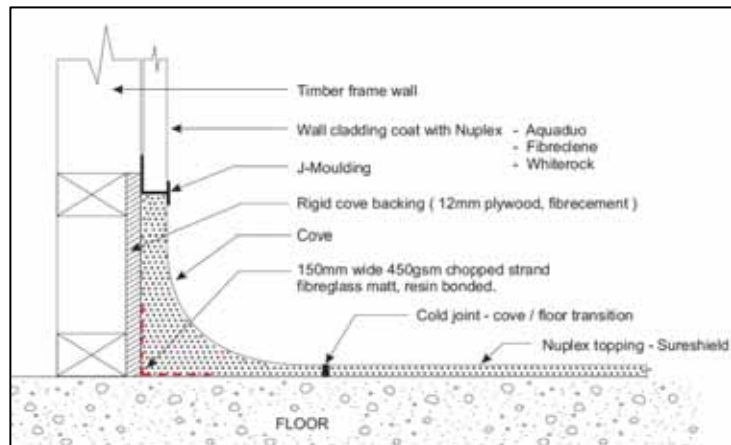
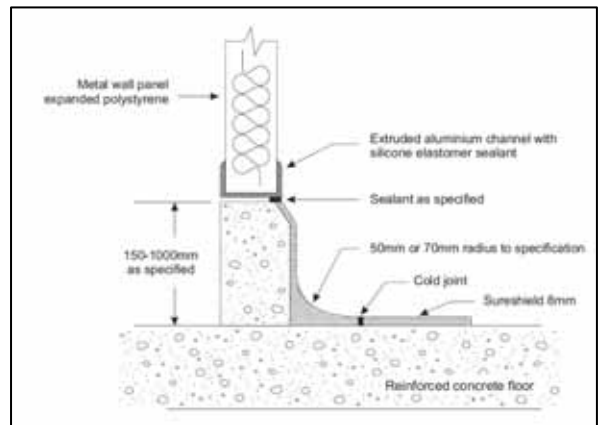
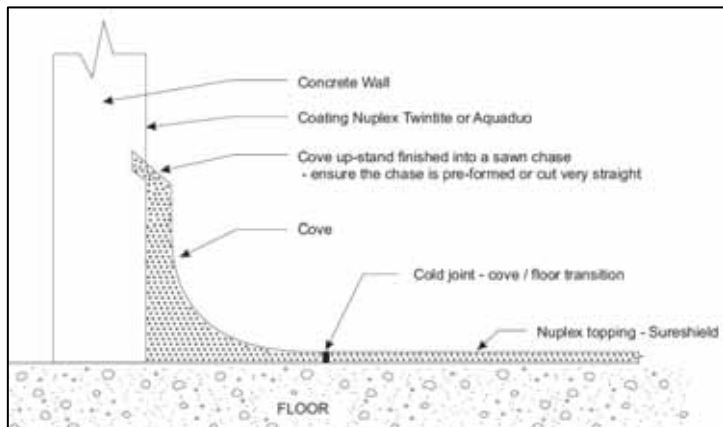
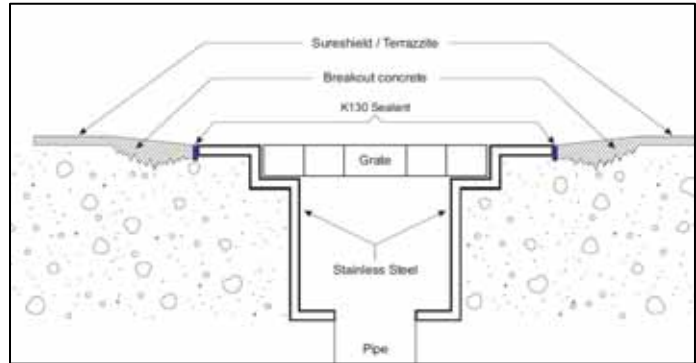
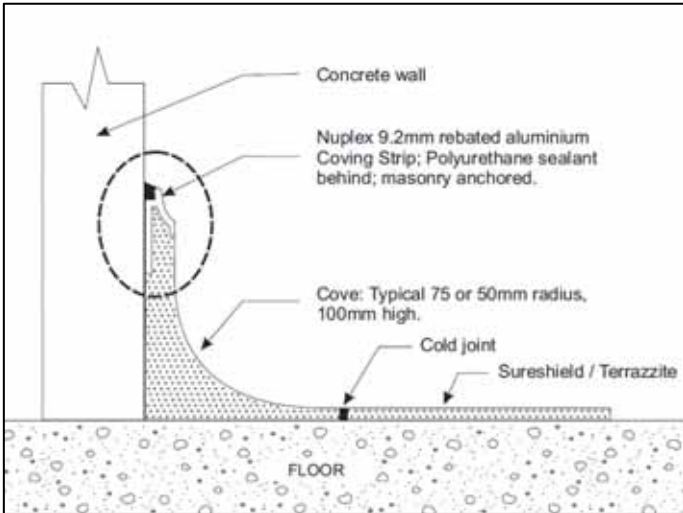
Topcoat: Once finished and hardened apply 1 coat of Nuplex Intafloor Topcoat (promoted & catalysed as before) at a spread rate no greater than 6m²/litre/coat. Topcoat must be applied only to clean and dry surfaces.

Joints: All concrete control and construction joints should be carried through the Sureshield ZV K130 Epoxy Gold for control joints.

Sample details

For more details see the website: resin floors / industrial toppings / "cove and install details" for more options.

http://www.nuplexconstruction.co.nz/pdf/Details_resin-floor-toppings.pdf



SURESHIELD ZV (cont'd)

QUALITY ASSURANCE:

A log shall be kept by the licensed Nuplex Sureshield ZV contractor and made available to Nuplex Industries Ltd at their request. Information to be recorded daily is:

1. Material batch numbers used.
2. Sequence of mixing, ratios and quantities and formula.
3. Substrate moisture content.
4. Substrate temperature.
5. Ambient temperature.
6. Ambient relative humidity.

THINNING cleanup:

Do not thin. Cleanup with acetone.

CURE AND DRY TIMES:

(25°C 50% RH)

Workable pot life:	20-30 minutes
Hard Dry:	2 hours
Light foot traffic:	2 hours
Recoat:	within 24 hours
Full Use:	3 hours

HEALTH & SAFETY:

- Overalls are recommended when using this product. Wear gloves if this suits the user as the material will bond strongly to skin. It has not been found to be dermatitis causing.
- Keep public from work area

SHELF LIFE:

12 months in unopened containers. After this period suitability for use should be checked in consultation with Nuplex Industries Ltd. Sureshield ZV is provided in rapid cure formula.

Complementary Materials:

- Fibreclene smooth wall lining material to meet Sureshield ZV above coving.
- Nuplex coving strips to form cove top termination.
- Nuplex coloured aggregates and colorants to provide alternatively coloured floors.

Maintenance and Cleaning

Resurfacing: Nuplex recommend two options: Re-aggregating with Traxite VE which is a high durability and chemically resistant finish. It offers very good adhesion to the prepared older surface. A second option is Nuthane topcoat which offers a monolithic and non-slip coloured finish with no odours.

Repairs can be undertaken with further new Sureshield ZV applied directly or use K20 repair system.

Cleaning: A Sureshield ZV floor is cleaned with stiff bristled brushes and detergents. The stiff bristle brushes and commercial detergents will remove dirt from the non-slip surface that a soft mop will not. The waxed nature of our topcoating system may attract dirt during the early life of the product. Pay careful attention to cleaning at this stage. Refer to the Cleaning document on our website.

Producer Statement

Nuplex Industries Ltd state that Sureshield ZV is compliant with E3 (internal water) and D1 (Access routes / slip resistance wet & dry).

July 2011

High performance Resin Flooring Choice Guide

Nuplex manufacture in NZ a range of rein floorings. Some are more suitable than others depending on the installation parameters and the performance required within its applied environment.

	Original Construction	Internal work or reconfiguration. Isolated environment	Internal work or reconfiguration. Sensitive or Exposed Public area
General small commercial kitchen	Sureshield or ZV *2	Sureshield ZV	Sureshield ZV or Supascreed
Supermarket - Deli	Sureshield or ZV	Sureshield ZV	Sureshield ZV or Supascreed
Supermarket - Fish	Sureshield or ZV	Sureshield ZV	Sureshield ZV or Supascreed
Supermarket - Butchery	Sureshield or ZV	Sureshield ZV	Sureshield ZV or Supascreed
Supermarket - Bakery	Sureshield or ZV	Sureshield ZV	Sureshield ZV or Nuthane
Laundry	Sureshield or ZV	Sureshield ZV	Sureshield ZV or Supascreed
Hot cook – heat, oils fats	Sureshield	Sureshield ZV	Sureshield ZV or Nuthane
High impact processing	Sureshield or ZV	Sureshield ZV	Sureshield ZV

* Protect area to enable use of this system for maximum durability.

*2 Industrial Terrazzite and Sureshield ZV are interchangeable.

Trowel-on systems such as Sureshield and version ZV offer:

- One-pass, rapid installed flooring
- Integrated floors, coves, drains, nibs and upstands for a seamless finished.
- Carefully managed falls to drains to help prevent ponding water
- 9mm finish offers the highest impact and abrasion resistance combined with high heat and chemical resistance. Beware thinner systems offering equal warranties.
- Best value for money on a dollars per mm thickness basis

