

# Specification

## Surechem VE



<b>PREPARED FOR:</b>	
<b>CONTRACT:</b>	Installation of allnex construction products Surechem VE Floor Finish  Project
<b>DATE:</b>	Nov 2019
<b>SCOPE:</b>	<ol style="list-style-type: none"><li>1. General Conditions of Contract.</li><li>2. General Assessment and Scope of Work.</li><li>3. Pre Start Execution</li><li>4. Surface requirements &amp; surface preparation.</li><li>5. Installation Allnex <b>Surechem VE</b></li><li>6. Application of Coves, Drains, Up -stands</li><li>7. Installation of Control Joints / Sealants etc.</li><li>8. Maintenance</li><li>9. Cleaning</li><li>10. Quality Assurance</li><li>11. Protection of the Work</li><li>12. Warranty</li><li>13. Approved Installation Companies</li><li>14. Documents to be consulted along with this this specification</li></ol>
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<b>NOTE:</b>	For <b>Project Specific Specifications</b> contact allnex construction products for advice  CS.ConstructionNZ@allnex.com

## 1.0

### GENERAL CONDITIONS OF CONTRACT

- 1.1 All materials shall be installed using best trade practices and in accordance with the manufacturers recommendations or instructions.  
If any doubt exists please contact Allnex Construction Products Limited for advice.
- 1.2 Materials may only be installed by approved contracting companies using staff skilled in the installation of all the products covered by this specification.  
Contractors are to make available senior skilled staff to supervise the work while in progress.
- 1.3 The contractor shall take reasonable steps to protect the general public, his work and adjacent surfaces during the time that his work is in progress.
- 1.4 Contractors are required to provide an acceptable Health and Safety programme which meets all the requirements of the current "Health & Safety in Employment" legislation. Contractors must also comply with any other relevant government legislation or local body laws, regulations or requirements.
- 1.5 The contractor is to provide samples showing colour and finish for final approval by the client or his consultant prior to commencing work on site.
- 1.6 This specification is to be read in conjunction with relevant product information and conditions of contract which may be issued by the client.
- 1.7 The contractor is to inspect all areas to be treated and must be satisfied that the surface is satisfactory to receive the proposed Allnex flooring system. If any doubt exists it is the responsibility of the contractor to seek advice from Allnex Construction Products.
- 1.8 Any warrantee required will be supplied by the Allnex contractor and backed up by our agreement with them.  
Refer Section 12 Below
- 1.9 Allnex Q.A. procedure and documentation is to be accurately recorded and kept on site during the contract.  
Allnex Construction Products reserves the right to inspect this documentation at any time. A copy of all relevant Q.A. information is to be returned to Allnex within one month of completion of the work on site.
- 1.10 There shall be no substitute materials used unless written approval is provided by Allnex Construction Products prior to the installation.

## 2.0

### GENERAL ASSESSMENT

- 2.1 This specification has been prepared to detail the requirements and ensure client understanding as to the synthetic resin wall & floor toppings being proposed for the afore-named project by Allnex Construction Products.  
The correct installation will increase the durability, life expectancy and aesthetics of the facilities and will also provide site personnel with a safe working environment.
- 2.2 Contractors will be required to work closely with The Main Contractor and/or their designated Co-ordinator/Consultant to minimise disruption as a result of any work undertaken. Specific time requirements and logistics are to be negotiated directly between the contractor and the Main Contractors **authorised personnel**.
- 2.3 Any change required during the course of the contract must be in **writing**.
- 2.4 The Main Contractor is to organise the removal of necessary equipment, food products, packaging etc from the work area prior to the commencement of the contract.
- 2.5 All food likely to be affected by fumes during the Allnex Surechem VE installation should be removed from the area.
- 2.6 Provision for falls to drains/pre-filling etc. is to be discussed, priced and confirmed in writing, prior to the commencement of the contract.

- 2.7 All flooring is to comply with slip co-efficient of friction requirements to ensure compliance with NZ/AS 3661:1993.
- 2.8 If for any reason the contractor is unable to carry out the installation of the Allnex System in accordance with this specification, and relevant material data sheets, it is the responsibility of the contractor to bring this to the attention of the client and/or Allnex Construction Products in writing. This must be done prior to the commencement of the work.
- 2.9 The Allnex Surechem VE System is also suitable for upgrading and resurfacing existing sound floor topping systems. Consult Allnex Construction Products for specific project advice.
- 2.10 Contractors are required to clean up all debris etc from the work area once their work is completed.
- 2.11 Technical Data  
Refer to [www.allnexconstruction.co.nz](http://www.allnexconstruction.co.nz) for any data.  
Refer to Allnex guides for preparation of walls & floors

2.12 Materials

Materials	
Primer	STZ Primer
Prefill / Repair	Sureshield
Flooring Resin	Surechem VE Resin
Topcoat	Surechem VE Topcoat Surechem VE Glass Flake (option)
Hardener	Surechem VE Hardener
Promoter	Cobalt
Flooring Sand	Allnex STZ Flooring Sand
Coving Sand	Allnex STZ Coving Sand
Anti – slip Broadcast Aggregate	Anti-Slip Aggregates as Designed
Cove Capping Detail	9.2 mm rebate or 5.2 mm
Floor Joint Sealant	Allnex K130
Sealants	Formwall Sealant

- 2.13 Other installation requirements  
Allnex specified mixing equipment  
Allnex specified application equipment
- 2.14 TRIMS AND EDGING  
TBC
- 2.15 For external works refer Allnex technical bulletin “Exterior Resin Applications”

**3.0 PRE-START EXECUTION**

- 3.1 STORAGE  
Accept all materials and accessories undamaged and dry. Store drums, pails and aggregates upright with other material on level surfaces in non-traffic, non-work areas that are enclosed, clean and dry.
- 3.2 HANDLING  
Avoid damage to drums and accessories.
- 3.3 PREPARATION  
Record batches and stock numbers. Follow the Allnex requirements for preparatory conditioning of materials working temperatures and conditions before, during and after application of the selected systems. Protect work from solar heat gain.
- 3.4 DO NOT START  
Work shall not commence until the building is enclosed, all wet work is complete and good lighting is available. For external applications protect the work area from adverse climatic conditions.

- 3.5 **INSPECT**  
Inspect the substrate to ensure it complies with the requirements of the selected finish system.
- 3.6 **PROTECTION**  
Protect adjoining work surfaces and finishes during the installation.
- 3.7 **SITE SAFETY**  
Ensure a site meeting has been held to acquaint other site workers with the requirement for closed access to the work area. Ensure Health and Safety requirements are understood and agreed to prior to the commencement of the contract.
- 3.8 **TECHNIQUE**  
Before beginning the installation confirm the proposed layout of material, location of control joints and other visual considerations of the finished work.

#### **4.0 SUBSTRATE REQUIREMENTS & SURFACE PREPARATION**

##### **4.1 New & Existing Concrete**

- 4.1 Substrates shall have a surface which has been mechanically trowelled to NZS3114:1987 U3 finish or better
- 4.2 A minimum compressive strength of 25 Mpa.
- 4.3 A minimum cure time of 28 days. (Exceptions seek further advice Allnex Construction Products)
- 4.4 Moisture content less than 75% RH or 18% WME (exceptions seek further advice Allnex Construction Products)
- 4.5 All falls and levels to be accurately laid into the concrete. (see 2.6 above)
- 4.6 A suitable vapour resistant membrane beneath the concrete slab is required i.e. polythene.
- 4.7 A surface free of cement laitance or other contaminants and any roughly screeded or floated areas.
- 4.8 No traces of cure membranes.
- 4.9 Cracks in the concrete are to be bandaged using Allnex 450 gsm fibreglass tape bandage or treated as a control joint as appropriate.
- 4.10 Deep depressions, impact damage, hollows etc to be repaired or filled as appropriate using Allnex Sureshield prefill.
- 4.11 Repair any unsatisfactory falls, levels, etc. using Allnex Screed 20+ or Sureshield prefill as appropriate.

##### **SUBSTRATE PREPERATION**

Refer to separate allnex flooring preparation document for full details.

Mechanically abrade the concrete surface to remove all surface laitance, all contaminants including, dirt, grease, oil, fats, existing coatings and also any areas of unsound substrate by captive shot blasting, grinding, scabbling, hammering as appropriate.

Allnex recommend mechanical abrasion and or captive shot-blast techniques as suitable methods of surface preparation.

Scabble (ramp) down the concrete to achieve an even finish where the Surechem VE will meet the existing concrete to provide a "no bump" transition while still providing full topping thickness at all times.

##### **Note**

Care with surface preparation is important when using Surechem VE.  
Methods used must produce sufficient profile to gain maximum adhesion. Minimum requirement CSP3-4,

##### **4.2 Existing Resin Flooring System**

Where the existing resin floor topping requires up-grading to re-establish a suitable surface finish for the clients environment.

Note (1)

The installing contractor must test an area for adhesion to ensure compatibility of the Surechem VE to the existing resin floor topping

- 4.2.2 Ensure all the existing resin floor topping is sound and stable with a minimum compressive strength of 25 MPA.
- 4.2.3 Remove all contaminants including dirt, grease, oil, fats, existing unsound material, by steam cleaning, captive shot blasting, grinding, scabbling, hammering as appropriate.
- 4.2.4 Have a moisture content less than 75% RH or 18% WME (**exceptions seek further advice from Allnex Construction Products**).
- 4.2.5 All falls and levels to be checked and rectified where necessary as per the clients or client representatives requirement.
- 4.2.6 Cracks in the existing topping system are to be bandaged using Allnex 450gsm fibreglass slip tape bandage or treated as a control joint as appropriate.
- 4.2.7 Deep depressions, impact damage, hollows etc to be repaired or using Sureshield Prefill.
- 4.2.8 Repair any unsatisfactory falls, levels, etc using Sureshield Prefill.

**SUBSTRATE PREPERATION**

As Above

Note (2)

Acid etching is not permitted as a surface preparation method.

**Allnex recommend Captive Shot-blasting**

**5.0**

**INSTALLATION OF ALLNEX SURECHEM VE FLOOR FINISH**

Outline Specification	
Surechem VE Thickness	Minimum 6mm
Colour	Standard "Light Gold" or chosen as required
Cove Radius	75mm or to match existing
Upstand Height	To follow existing
Cove / Upstand Finish	Smooth
Floor Finish to be:	Steel trowel finish: Non – slip to areas as prescribed
Anti- Slip Broadcast Finish (where required)	As Designed
Anti – Slip Broadcast Finish Technique Full Over-seed	Evenly distribute into the wet resin screed to <b>excess</b> the design aggregate blend as specified.  As the resin begins to show on top of the aggregate, additional aggregate is evenly broadcast until no more resin surfaces.  Allow the Surecote to fully harden then remove all excess aggregate and continue with finishing coats as required
Finish Coat	Surechem VE Top Coat Clear

5.1 Ensure the substrate is properly prepared and is suitable to receive the Allnex Surechem VE finish.

Install Allnex Surechem VE strictly in accordance with the specifications and recommendation of Allnex

Construction Products, and is accurately laid to a minimum thickness as specified.

Note (3)

Mineral fillers/aggregates shall be dry and to Allnex formula and have been box blended to ensure evenness of colour.

5.2 Neatly mask out and protect all areas not covered by the proposed work.

5.3 Apply one (1) coat of STZ Primer at a spread rate not exceeding 6m<sup>2</sup>/litre/coat.

Porous areas may require further coats until porosity is eliminated.

Allow primer to become tack free.

Note (4)

**Surechem VE must be promoted prior to the addition of the Surechem VE Hardener**

5.4 Accurately weigh and thoroughly mix the pre-promoted Surechem VE Resin and Hardener in the correct proportions in a separate container.

Add the graded aggregates (correct weight) to the mixed resin and hardener, mix until homogenous, consistent and free of lumps.

5.5 Evenly apply by way of trowel the Surechem VE mix across the area to be laid ensuring a well compacted minimum thickness as specified is obtained.

A wet edge must be maintained across the work face to allow the next section of resin to be worked in without showing a ridge.

Ensure all finished edges of the Surechem VE are supported to avoid damage

Note (5)

If a Non – Slip Broadcast system is required the following methods are suitable for distribution of the aggregate

- Hand application
- Hopper gun

Note (6)

Aggregate is then broadcast until refusal.

Note (7)

No resin must show through the surface

Note (8)

As soon as the resin has hardened sufficiently (to allow walking across) all excess aggregate is to be removed by sweeping followed by vacuuming to remove dust etc.

5.6 Apply two (2) coats of Allnex Surechem VE Topcoat at a maximum spread rate of 6m<sup>2</sup> / Litre.

Note (9)

Additional Topcoats may be required in areas where a smoother finish is required or a light colour has been chosen.

Note (10)

For greater chemical resistance use Situclad VE Glass Flake in place of the Surechem VE Top Coat

**Observe minimum/maximum recoat recommendations**

## 6.0 APPLICATION OF COVES, DRAINS, UPSTANDS ETC

6.1 Ensure the substrate is properly prepared and is suitable to receive the Allnex Surechem VE Cove finish.

6.2 Install the Allnex Surechem VE Cove detail strictly in accordance with the specifications and recommendation of Allnex Construction Products.

6.3 **Cove Reinforcement**, Apply a Fibreglass bandage to the junctions between all timber framed or insulated panel walls and floors using 450 gsm glass mat and STZ Primer. Fibreglass is to extend to full height of cove/upstand and minimum 50mm onto floor.

- 6.4 **Cove Capping**, Install allnex aluminium STZ cove flashing to all walls at a height of 100mm (or as directed on the plan) from floors.  
Ensure aluminium cove flashing is positively sealed and overlaps the fibreglass bandage.
- 6.5 Coves can be completed prior to the floor installation, however they are best installed following installation of the floor. The floors must be protected during the cove installation.
- 6.6 Accurately weigh and thoroughly mix the pre-promoted Surechem VE Cove Resin and Hardener in the correct proportions in a separate container. Add the graded aggregates (correct weight) to the mixed resin and hardener, mix until homogenous, consistent and free of lumps.
- 6.7 Apply evenly by way of trowel the Surechem VE Cove ensuring consistency across the area. Good compaction with a minimum radius as specified is the requirement.
- 6.8 Once cured apply the Surechem VE top coat as appropriate

## 7.0 **INSTALLATION OF CONTROL JOINTS/SEALANTS ETC**

- 7.1 Expansion / control joints in the substrate are to be continued through the Allnex Floor Finish.
- 7.2 Only suitable flexible epoxy resin based control joint sealants suitable for floor movement are to be used such as Allnex K130
- 7.3 Junctions between Surechem VE flooring and stainless steel drains etc are to be sealed using Allnex K130 epoxy or Formwall sealant.
- 7.4 Ensure all penetrations through the floor/coves, metal cove capping etc are positively sealed using Formwall Flexible Polyurethane sealant.
- 7.5 All cold joints between sections of the Surechem VE flooring / coves etc may be sealed using Allnex C81 jointing resin.

## 8.0 **MAINTENANCE**

Ease of repair is a major advantage with allnex Surechem VE flooring. Damaged areas are cut out and patched level using new materials quickly and with little disruption.

## 9.0 **CLEANING MAINTENANCE**

See Separate Technical Data Attached.

## 10.0 **QUALITY ASSURANCE**

A log using Allnex QA sheets 1,2,& 3 shall be kept by the installation contractor and made available to Allnex at their request. information to be record daily is but not limited to:

- a) Material Batch Numbers
- b) Sequence of Mixing ratios, quantities and formula
- c) Substrate Moisture Content
- d) Substrate Temperature
- e) Ambient Temperature
- f) Ambient Relative Humidity

## 11.0 **PROTECTION OF WORK**

- 10.1 The flooring contractor shall take reasonable steps to protect his work and the work of others trades during the time that his work is in progress.  
The General Contractor during the same time shall keep the floor areas free and clear of traffic.  
Thereafter, until the building is completed , it shall be the responsibility of the general contractors to protect the Allnex floor finish from damage, paint droppings, or other contamination that may prove difficult to remove or detrimental to the finish floor characteristics and performance.

## 12.0 **WARRANTY**

Allnex will assure that all products incorporated into this specification have been manufactured to allnex quality specifications and GMP procedures.

Allnex will also assure that when correctly applied the system will meet the critical requirements of AS/NZS 1838-1994.

However given that allnex has no control over the substrate, the application environment and the application process all warranties are supplied by the installation contractor and backed by our agreement with them.

The flooring contractor shall provide a warranty for a period of:

**TBC (as required) Years**

The warranty period commences from the date of practical completion.

Damaged areas must be repaired immediately to ensure continuity of the Warranty

**13.0 ALLNEX APPROVED REGIONAL INSTALLATION COMPANIES**

allnex will provide individual advice for specific projects and should be consulted, it is the nature of the trade that contractor skill levels, capability and experience vary.

**14.0 DOCUMENTS TO BE CONSULTED**

- allnex Product Technical Data Sheets
- allnex Colour Formulas
- allnex Flooring Details
- allnex Cleaning Recommendations
- allnex Surface Preparation Document
- allnex Technical Bulletins
- allnex Exterior Installations.

This advice is given in good faith, for further advice or information do not hesitate to contact the allnex technical team.

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