

# Specification

## Sureshield / Sureshield ZV



<b>PREPARED FOR:</b>	
<b>CONTRACT:</b>	Installation of Allnex Construction Products Sureshield / Sureshield ZV slip resistance floor finishes  Project
<b>DATE:</b>	February 2020
<b>SCOPE:</b>	<ol style="list-style-type: none"><li>1. General conditions of contract.</li><li>2. General assessment.</li><li>3. Pre Start Execution</li><li>4. Substrate Requirements and Surface Preparation</li><li>5. Installation: Allnex <b>Sureshield</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. Completion &amp; Protection of the Work</li><li>12. Warranty</li><li>13. Installation Companies</li><li>14. Documents to be Consulted</li></ol>
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<b>NOTE:</b>	For <b>Project Specific Specifications</b> contact allnex construction products for advice  <a href="mailto:CS.ConstructionNZ@allnex.com">CS.ConstructionNZ@allnex.com</a>

## 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 contracting companies using staff skilled in the installation of all 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 application 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 No Substitute Materials,

## 2.0 GENERAL ASSESSMENT

- 2.1 The Sureshield Topping is a proven system providing a durable, hygienic, non-slip floor surface that is resistant to a range of harsh chemicals, is heat and impact resistant and can be steam or chemically cleaned. Sureshield can be formed to allow falls to drains and will provide a seamless floor to wall cove detail.
- 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 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 ensure the designated areas are clear, clean and ready for the commencement of the flooring installation.
- 2.5 All food, packaging or client equipment likely to be affected by fumes/dust during the Sureshield 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.

*Floor Fall Note: The existing floor slab shall be checked in the following manner.*

- i) *Around the perimeter of all walls the levels shall be checked at 500mm centres and a continuous horizontal level struck based on the highest spot level found.*

- ii) Where a level floor finish is called for the highest spot level shall be found and this point will determine the base point for the floor and the wall perimeter.
- iii) Where falls are built into the concrete floor slab the difference between the lowest (floor waste) points and the highest (level determined under (i) and (ii) above) shall be checked against the levels proposed in the documents.

Should the contractor find that the slab requires remedial work before he can commence his application then he shall request the main contractor to rectify the areas of defect.

Once the existing levels and proposed base levels are determined the existing floor slab shall be corrected (if required) using STZ Prefill. STZ prefill consists of Sureshield resin and specifically blended aggregates.

Prefill shall be laid over all areas necessary to achieve the following results:

- i) Around the perimeter of all walls and to all areas where a level floor finish is specified prefill shall be applied to provide a sub base level of +/- 3mm over a 3 metre grid.
- ii) To areas where a fall is specified prefill shall be applied to provide a sub base where a line laid between the high and low points shall be of constant gradient and vary by no more than 3mm over a 3 metre length.

During the application of the Sureshield STZ Prefill the applicator shall constantly check his work with the laser beacon and sensor to ensure accuracy.

The STZ prefill shall be installed in a manner that still allows the full thickness of Sureshield to be applied over that prefill.

2.7 If for any reason the contractor is unable to carry out the installation of the Allnex Flooring 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.

2.8 Contractors are required to clean up all debris etc from the work area once their work is completed.

2.9 Technical Data  
Refer to [www.allnexconstruction.co.nz](http://www.allnexconstruction.co.nz) for any data.

2.10 Materials

Element	Sureshield	Sureshield ZV
Primer:	STZ Primer STZ Hardener	Intafloor ZV Primer Intafloor ZV Hardener Cobalt
Flooring System:  Colour	Sureshield Resin STZ Hardener Allnex STZ Flooring Sand  TBC as specified	Intafloor ZV Resin Intafloor ZV Hardener Cobalt Allnex STZ Flooring Sand TBC as Specified
Floor Surface Finish Choose As Appropriate	Option 1 Smooth – Steel Trowel Finish 2 Light Texture – Glass Trowel Finish 3 Anti-Slip – Aggregate Broadcast (designed as specified)	Option 1 Smooth – Steel Trowel Finish 2 Light Texture – Glass Trowel Finish 3 Anti-Slip – Aggregate Broadcast (designed as specified)
Coving System:	Sureshield Resin STZ Hardener Allnex STZ Coving Sand Surface Finish Smooth	Intafloor ZV Resin Intafloor ZV Hardener Cobalt Allnex STZ Cove Sand

Colour	Colour TBC as Specified	Surface Finish Smooth Colour TBC as Specified
Topcoat:	STZ Topcoat Resin STZ Hardener	Intafloor ZV Clear Top Coat Resin Intafloor ZV Hardener Cobalt
Cove Capping Detail:	STZ Cove Strip 9.2 Rebate	STZ Cove Strip 5.2 or 9.2 Rebated
Floor Joint Sealant:	Allnex K130,	Allnex K130,
Sealants:	Formwall Polyurethane Sealant	Formwall Polyurethane Sealant

- 2.11 Other installation requirements  
Allnex specified mixing equipment  
Allnex specified application equipment

- 2.12 TRIMS AND EDGING  
TBC

### **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 the 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**

#### **4.1 New Concrete**

4.1.1 New concrete shall have a surface which has been mechanically trowelled to NZS3114:1987 U3 finish or better.

4.1.2 A minimum compressive strength of 25 MPA at 28 days cure.

- 4.1.3 A minimum cure time of 28 days.
- 4.1.4 Have a moisture content less than 75% RH or 18% WME (**exceptions seek further advice from Allnex Construction Products**)
- 4.1.5 All falls and levels to be accurately laid into the concrete. See 2.6 above
- 4.1.6 A suitable vapour resistant membrane beneath the concrete slab is required i.e. polythene.
- 4.1.7 A surface free of cement laitence or other contaminants and any roughly screeded or floated areas.
- 4.1.8 No traces of cure membranes.
- 4.1.9 Cracks in the concrete are to be bandaged using Allnex 450gsm fibreglass slip tape bandage or treated as a control joint as appropriate.
- 4.1.10 Deep depressions, impact damage, hollows etc to be repaired or filled as appropriate using Sureshield Prefill.
- 4.1.11 Repair any unsatisfactory falls, levels, etc using Sureshield Prefill as appropriate to suit the proposed floor finish

### **Surface Preparation**

**Allnex recommend mechanical abrasion techniques as the surface preparation method.**

**Captive Shot blasting is the preferred option.**

**Minimum requirement: CSP 7 or 8.**

**(Refer: Allnex Surface Preparation Technical Literature)**

## **4.2 Existing Concrete**

- 4.2.1 Ensure existing concrete is sound and stable with a minimum compressive strength of 25 MPA
- 4.2.2 Remove all contaminants including cement laitence, dirt, grease, oil, fats, existing coatings, unsound substrate etc by steam cleaning, captive shot blasting, grinding, scabbling, hammering etc as appropriate.
- 4.2.3 Have a moisture content less than 75% RH or 18% WME (**exceptions seek further advice from Allnex Construction Products**).
- 4.2.4 All falls and levels to be accurately laid into the concrete.
- 4.2.5 A suitable vapour resistant membrane beneath the concrete slab is required i.e. polythene.
- 4.2.6 A surface free of any roughly screeded or floated areas.
- 4.2.7 No traces of cure membranes.
- 4.2.8 Cracks in the concrete are to be chased out and filled using Sureshield ZV and J61 sand or treated as a control joint as appropriate.
- 4.2.9 Deep depressions, impact damage, hollows etc to be repaired or filled as appropriate using Sureshield ZV Prefill.
- 4.2.10 Repair any unsatisfactory falls, levels, etc using Sureshield ZV Prefill.

### **Surface Preparation**

**Allnex recommend mechanical abrasion techniques as the surface preparation method.**

**Captive Shot blasting is the preferred option.**

**Minimum requirement: CSP 7 or 8.**

**(Refer: Allnex Surface Preparation Technical Literature)**

## 5.0

### INSTALLATION OF ALLNEX SURESHIELD FLOOR FINISH

#### 8.0mm Thick Sureshield Topping

**Note:**

**The Intafloor ZV Resin used for the Sureshield ZV system must be cobalt promoted prior to the addition of the Intafloor ZV hardener**

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

5.2 All flooring is to comply with slip co-efficient of friction requirements to ensure compliance with NZ/AS 36611993.

**Install Allnex Sureshield strictly in accordance with the specifications and recommendation of Allnex Construction Products, and accurately laid to a minimum thickness of 8.0mm**

**Note**

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

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

5.4 Apply one (1) coat of 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.

5.5 Accurately weigh and thoroughly mix the Sureshield 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.

5.6 Evenly trowel apply the Sureshield mix across the area to be laid ensuring a well compacted minimum 8.0mm thickness 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 Sureshield are supported to avoid damage.

#### 5.7 Design Finish Options

1 Finish Sooth - Utilizing Steel Trowel Techniques

2 Light Texture – Finish Utilizing Glass Float Techniques

3 Finish utilizing the following method to obtain the correct Anti-Slip Profile

5.7.3.1 Evenly distribute into the wet resin screed the design screed aggregate blend.

5.7.3.2 As the resin begins to show on top of the aggregate, additional aggregate is evenly broadcast until no more resin surfaces.

5.7.3.3 Suitable methods of distributing the aggregate are:

5.7.3.4 Hand distribution

Hopper gun / Air driven distribution

5.7.3.5 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.

5.7.3.6 Further aggregate is then added.

5.7.3.7 This process is repeated until the area is complete.

5.7.3.8 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.

5.8 Apply a minimum two coats of Allnex STZ Topcoat at a maximum spread rate of 6m<sup>2</sup> / Litre.

**Note**

**Additional Topcoats may be required in areas where a smoother finish is required.**

### Observe minimum/maximum recoat recommendations

## 6.0 APPLICATION OF COVES, DRAINS, UPSTANDS ETC

### **Note:**

**The Intafloor ZV Resin used for the Sureshield ZV system must be cobalt promoted prior to the addition of the Intafloor ZV hardener**

- 6.1 Ensure the substrate is properly prepared and is suitable to receive the Allnex Sureshield Cove finish.
- 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 Resin. Fibreglass is to extend to full height of cove/upstand and minimum 50mm onto floor.
- 6.4 **Cove Capping**, Install Allnex Sureshield 5.2 / 9.2 rebated cove cap termination detail strictly in accordance with the specifications and recommendation of Allnex Construction Products and specific site requirements. Ensure aluminium cove flashing is mechanically fixed at a minimum of 300mm centres and positively sealed to provide a hygienic finish and overlaps the fibreglass bandage.
- 6.5 Coves can be completed as the main floor is installed 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 Sureshield 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 Sureshield Cove ensuring consistency along the detail. Ensure good compaction and the designed radius for the area is as indicated. Typically 25mm. Ensure the transition of the cove base onto the flooring area is smooth, even and free of nibs and depressions that may hold dirt. All cove details are finished smooth to aid cleaning.
- 6.8 As soon as the resin cove detail has hardened sufficiently de-nib followed by vacuuming to remove dust etc.
- 6.9 Apply a minimum two coats of Allnex STZ Topcoat at a maximum spread rate of 6m<sup>2</sup> / Litre.

### *Note*

*Additional Topcoats may be required in areas where a smoother finish is required.*

### Observe minimum/maximum recoat recommendations

## 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 quality control joint sealants suitable for floor movement are to be used such as Allnex K130,  
**Note**  
**The Control Joint Sealants must be installed with a bond breaker.**
- 7.3 The interface between the Allnex flooring and stainless steel drains etc are to be sealed using AllnexK130, NPU 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 Sureshield flooring/coves etc may be sealed using Allnex C81 jointing resin.

## 8.0 MAINTENANCE

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

## **9.0 CLEANING**

See Separate Technical Data Attached

## **10.0 QUALITY ASSURANCE**

A log shall be kept by the licensed Allnex contractor and made available to Allnex at their request. Information to be recorded daily is but not limited to:-

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

**Refer: Documents QC.RF.1, QC.RF.2, QC.RF.3**

## **11.0 COMPLETION & PROTECTION OF WORK**

The licensed 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.

- Check Top Coating has removed all “boney” / ‘dry” floor and cove surfaces.
- All cove details are full and complete with no gaps that may allow water ingress.
- De-nibbing, Ensure all rough surface dags are removed from floors and coves.
- Check non-slip surface texture is as specified and even.
- Check all water falls to drains, with no ponding as specified.
- Ensure floor / topcoat is fully cured overnight prior to other trades or service.

## **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 on the trade that contractor skill levels, capability and experience vary.

## **14.0 DOCUMENTS TO BE CONSULTED**

- Allnex License Contractor List
- Allnex Product Technical Data Sheets
- Allnex Colour Formulas e.g. Foodstuffs Red
- Allnex Flooring Details
- Allnex Cleaning Recommendations
- Allnex Surface Preparation Document
- Allnex Technical Bulletins
- Allnex Exterior Installations.



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Date: Feb 2020

Replaces Sept 2015

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