

Specification

Nuthane SB



PREPARED FOR:	
CONTRACT:	Installation of allnex construction products Nuthane SB Floor Finish Project:
DATE:	February 2020
SCOPE:	<ol style="list-style-type: none">1. General conditions of contract.2. General assessment and scope of work.3. Pre Start Execution4. Substrate Requirements & Surface Preparation5. Installation: allnex Nuthane SB6. Application of Coves Drains Upstands7. Installation of Control Joints / Sealants etc.8. Nuthane Back Into Service Schedule9. Maintenance10. Cleaning11. Quality Assurance12. Protection of the Work13. Warranty14. Approved Installation Companies15. Documents to be consulted along with the specification
PREPARED BY:	Colin Nolan Allnex construction products Ph- +64 3 366 6802 Mob- +64 21 956 160 Email- colin.nolan@allnex.com www.allnexconstruction.com
NOTE:	For Project Specific Specifications 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 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 substrate 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 installation contractors 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 This specification has been prepared to detail the requirements required and ensure client understanding as to the synthetic resin wall & floor toppings being proposed for the afore-named project by Allnex Construction Products.
- 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 organise the removal of equipment, food products, packaging etc from the work area prior to the commencement of the contract.
- 2.5 allnex Nuthane SB is a low odour system; however; all food or packaging likely to be affected by the proposed work (e.g. dust) during the allnex Nuthane SB 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 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.
- 2.9 The Allnex Nuthane SB system is also suitable for upgrading and resurfacing existing sound resin 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.com for any data.

2.12 Materials

Element	Material
Primer: (where required)	Supascreed Primer
Flooring System:	Nuthane Resin Nuthane Hardener Nuthane SB Aggregate
Prefilling System:	Supascreed Resin Supascreed Hardener Graded Aggregate Or Allnex Screed 20+
Topcoat:	Nuthane Resin Nuthane Hardener Nuthane Topcoat Filler Supadeck TF Hardener Nuthane Catalyst
Anti – slip Broadcast Aggregate:	Walton Park 18/36 K20s Silica Sand
Floor Joint Sealant	K130
Sealants	Formwall Polyurethane Sealant
Cove Capping Detail	STZ 5.2 Cove Strip or 9.2 Rebated Cove Strip

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

- 2.14 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 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.

Note (1)

Brooming is not recommended where preparation is achieved by captive shot blasting or other coarse abrasive methods.

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

- 4.1.3 Substrate Temperature ideally +10°C min / +40°C max, applications in lower temperatures will cause the material to become more viscous and harder to place, applications at high temperatures will cause the material to become less viscous and may need edge retaining bars during application to maintain finish floor thicknesses.

- 4.1.4 Substrate Moisture Content allnex Nuthane can be installed on substrates with a high moisture content. The substrate needs to be visibly dry and have a nominal pull-off strength of a min 1.5 N/mm², with No ponding water.

Note (2)

Wet & Uncured concrete (when less than 28 days cure).

Allow no further wetting-(rain).

The concrete design must be controlled for an early cure and low water content.

The Engineer must ensure that the concrete has a low water/cement ratio, is a high strength, rapid setting concrete containing water reducing agents and early cure agents.

It must be certified by the concrete placer that the above has occurred for the Warranty to apply; certification of the engineered concrete must occur and allnex construction products and its contractor must see evidence of its formulation and correct installation.

- 4.1.5 All falls and levels to be accurately laid into the concrete.

- 4.1.6 No rising moisture. A suitable vapour resistant membrane beneath the concrete slab is required.

- 4.1.7 A surface free of cement laitence or other contaminants and any roughly screeded, floated or patched or 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, hollow etc to be repaired or filled as appropriate using Supascreed Prefill or polymer screed, allnex Screed 20+

- 4.1.11 Repair any unsatisfactory falls, levels, etc. using Supascreed Prefill, or allnex screed 20+ as appropriate.

- 4.1.11 Anchorage grooves are to be installed at all screed termination points, around drains, perimeter edges and doorways etc as detailed in the Nuthane SB technical literature

4.2 Existing Concrete

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

- 4.2.2 A minimum compressive strength of 25 MPA.

- 4.2.3 Substrate Temperature ideally +10°C min / +40°C max, applications in lower temperatures will cause the material to become more viscous and harder to place, applications at high temperatures will cause the material to become less viscous and may need edge retaining bars during application to maintain finish floor thicknesses.

- 4.2.4 Substrate Moisture Content allnex Nuthane can be installed on substrates with a high moisture content. The substrate needs to be visibly dry and have a nominal pull-off strength of a min 1.5 N/mm², with No ponding water.

- 4.2.5 All falls and levels to be accurately laid into the concrete.

- 4.2.6 A suitable vapour resistant membrane beneath the concrete slab is required.

- 4.2.7 A surface free of cement laitence or other contaminants and any roughly screeded or floated areas.

- 4.2.8 No traces of cure membranes.

- 4.2.9 Cracks in the concrete are to be bandaged using Allnex 450gsm fibreglass slip tape bandage or treated as a control joint as appropriate.
- 4.2.10 Deep depressions, impact damage, hollows etc to be repaired or filled as appropriate using Supascreed Prefill or polymer screed, allnex Screed20_
- 4.2.11 Repair any unsatisfactory falls, levels, etc using Supascreed Prefill or allnex Screed 20+ as appropriate to suit the proposed floor finish.
- 4.2.12 Anchorage grooves are to be installed at all screed termination points, around drains, perimeter edges and doorways etc as detailed in the Nuthane SB technical literature

Surface Preparation

Allnex recommend mechanical abrasion techniques as the surface preparation method.
 Captive Shotblasting is the preferred option.
 Minimum requirement: CSP 7 or 8.
 (Refer: Allnex Surface Preparation Technical Literature)

5.0 INSTALLATION OF ALLNEX NUTHANE SB FLOOR FINISH

6.0mm thick Nuthane SB Topping

- 5.1 Ensure the substrate is properly prepared and is suitable to receive the allnex Nuthane SB finish

Install allnex Nuthane SB strictly in accordance with the specifications and recommendation of allnex construction products, and accurately laid to a minimum thickness of 6.0mm

Beware of condensation!

The substrate and uncured floor must be at least 3°C above dew point to reduce the risk of condensation or other disturbance of the surface on the floor finish. Water droplets from steelwork or other plant and equipment will cause surface staining of the finished floor, this staining is not detrimental to the floor performance but will effect aesthetics.

- 5.1.1 Finishes Table

Floor Colour	To Be Confirmed
Floor Finishes	K20s (Light texture). 18/36 (Medium Texture). 18/36 Aluminium Oxide (Heavy Non-Slip)

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 Where required only - Apply one (1) coat of Supascreed Primer at a spread rate not exceeding 5m²/litre/coat.
Porous areas may require further coats until porosity is eliminated. Allow primer to become tack free.
- 5.4 Accurately weigh and thoroughly mix the Nuthane Resin and Hardener in the correct proportions in a separate container. Add the Nuthane SB aggregates (correct weight) to the mixed resin and hardener, mix until homogenous, consistent and free of lumps.
- 5.5 Evenly trowel apply the Nuthane SB slurry mix across the area to be laid using a standard trowel, pin-rake & squeegee ensuring minimum 4.0mm thickness is obtained.
- 5.5.1 As soon as the material has levelled sufficiently, **evenly** distribute into the wet slurry coat to **excess** the design aggregate blend.
- 5.5.2 As the resin begins to show on top of the aggregate, additional aggregate is evenly broadcast until no more resin surfaces.
- 5.5.3 Suitable methods of distributing the aggregate are:
 - Hand distribution
 - Hopper gun / Air driven distribution
- 5.5.4 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.

- 5.5.5 Further aggregate is then added.
- 5.5.6 This process is repeated until the area is complete.
- 5.5.7 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.
- 5.5.8 Apply a minimum one (1) coat Nuthane Topcoat.
- 1st Topcoat @ 1.5m²/litre
 - 2nd Topcoat @ 4m²/litre

Note (4)

Additional topcoats may be required in order to obtain a match to the samples provided.

Observe minimum/maximum recoat recommendations.

6.0 COVES | DRAINS | UPSTANDS

- 6.1 Ensure the substrate is properly prepared and is suitable to receive the allnex Supascreed Cove finish
- 6.2 Install the allnex Supascreed 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 450gsm glass mat and Supascreed Resin. Fibreglass is to extend to full height of cove/upstand and minimum 50mm onto floor.
- Note (5)**
Cove reinforcement is installed prior to the installation of the Nuthane Flooring
- 6.4 Cove Capping, Install allnex aluminium STZ cove flashing to all walls at a height of as specified. Ensure aluminium cove flashing is positively sealed 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 Supascreed 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 Supascreed Cove ensuring consistency across the area. Good compaction with a minimum radius as specified is the requirement.
- 5.5.7 As soon as the resin has hardened sufficiently de-nib the surface by mechanical or hand sanding, scraping.
- 5.5.8 Apply a minimum one (1) coat Nuthane Topcoat.
- 1st Topcoat @ 1.5m²/litre
 - 2nd Topcoat @ 4m²/litre

Note (6)

Additional topcoats may be required in order to obtain a match to the samples provided.

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 Nuthane SB Floor finish.
- 7.2 Only suitable flexible quality control joint sealants suitable for floor movement are to be used such as allnex K130.
- Note (6)**
The Control Joint Sealant must be installed with a bond breaker.
- 7.3 The interface between the allnex Nuthane SB flooring and stainless steel drains etc are to be sealed using allnex K130 sealant.
- 7.4 Ensure all penetrations through the floor / coves, metal cove capping's etc are positively sealed using Formwall Flexible Polyurethane sealant.

7.5 All cold joints between sections of the Traxite flooring / coves etc may be sealed using the specified system sealer

8.0 NUTHANE BACK INTO SERVICE SCHEDULE

Temperature	Foot traffic	Light traffic	Full cure
+10 °C	24 hours	48 hours	5 days
+20 °C	12 hours	36 hours	3 days
+30 °C	5 hours	16 hours	2 days

Note: Times are approximate and will be affected by changing ambient and substrate conditions

9.0 MAINTENANCE

Ease of repair is a major advantage with allnex Nuthane flooring.

Damaged areas are cut out and patched level using new materials quickly and with little disruption.

10.0 CLEANING

See Separate Technical Data www.allnexconstruction.com

11.0 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**

12.0 PROTECTION OF WORK

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.

13.0 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

14.0 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.

15.0 DOCUMENTS TO BE CONSULTED

- allnex Product Technical Data Sheets
- allnex Colour Formulas
- allnex Flooring Details
- allnex Cleaning Recommendations
- allnex Surface Preparation Document
- allnex STZ Prefill 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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The logo for allnex, featuring the word "allnex" in a white, lowercase, sans-serif font. The letters "a", "l", "l", "n", "e", and "x" are connected. Above the letters "l", "l", "n", and "e", there are four horizontal bars in purple, red, green, and blue respectively, extending to the right.

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