

# Technical Data Sheet

## Situclad EWS Fibre-reinforced waterproofing system

### DESCRIPTION:

Situclad EWS is a protective laminate system applied in-situ to provide a smooth, jointless system, which follows the substrate contours, profiles etc. is impact resistant waterproof surface. It forms a continuous membrane which is fully bonded to the substrate.

Based on the proven Aquakem (Aquaguard 101) epoxy waterproofing, Situclad EWS is used as a more comprehensive waterproofing and protection system by forming a laminate membrane, it is more durable than straight applied Aquakem (Aquaguard 101).

Situclad EWS is the recommended system for the waterproofing of interior Concrete / Concrete block walls where an unreinforced coating will crack on mortar joints.

*Situclad EWS is a NO odour system: - Ideal for working in tanks.*

### TYPICAL FEATURES | BENEFITS:

- Compliant with **E3 Internal Moisture**: Internal, Watersplash, section 3.1.1.eg bathroom floor and shower base use.
- Is a solution for **E2/AS1 External Moisture** for waterproofing walls and floors on the internal side
- Compliant with **BRANZ good Trade Practice** guide. Concrete Floors section 8.6.4.
- Based on the proven Aquakem (**Aquaguard 101**) epoxy system.
- Tolerant of application to a slightly damp surface.
- Will bond to **green / fresh** concrete - see cautions below.
- Resistant to peeling and flaking.
- 40 plus years of use in New Zealand.
- Cured Film is non-toxic. – Non-flammable
- Very good abrasion and scuff resistance.
- No odour during application.
- Easily cleaned.
- Excellent adhesion to properly prepared substrates.
- Water-based - No solvents.
- Easily repaired and maintained
- Non-toxic. Non-flammable
- Good impact and abrasion resistance.
- Will not contaminate foodstuffs during application.

### RECOMMENDED USES:

For creating a waterproof finish over Masonry | Concrete | Precast | Plywood | Tilt Slab and Insulated Panel in following:

- Internal wet areas: Bathrooms, kitchens, laundries: on Concrete, plywood, fibre-cement.
- Concrete water tanks – Internal
- Concrete water tanks – External – Must be over-coated to protect from UV – *Refer: Situclad WCS Method Statement for this type of application.*
- Insulated Panel – Internal – Must be over-coated – *Refer: Situclad WCS Method Statement for this type of application.*
- Fibreglass reinforced, exposed floor finishes. Must be over-coated to protect from UV *Refer: Situclad WCS Method Statement for this type of application.* or *Refer: allnex Construction Products for specific advice and finish options.*
- Planters.
- Silos - Internal
- Silos - External – Must be over-coated to protect from UV – *Refer: Situclad WCS Method Statement for this type of application.*

### NOT RECOMMENDED:

- Application below +10°C or when relative humidity is above 85%.
- Application to unsound substrates.
- Application to incorrectly prepared surface.
- Over existing coatings.
- Over untreated steel.
- Application over actively leaking water.
- Not for contact with strong acids, alkalis or aggressive solvent. *Refer: allnex for advice for this type of application.*
- Do not apply to structures with excessive joint movement.
- Not for use on red (clay) bricks, plaster, limed plasters, old paints, old adhesive. *See: surface preparation below.*
- Do not use exposed to exterior UV situations. *Refer: Situclad WCS Method Statement for this type of application.*
- For areas exposed to UV, exterior decks, roofs etc. *Refer: allnex Ultratuff, Terraflex or Situclad WCS system.*
- Floors subjected to heavy traffic without protective glaze coating *Refer: Situclad WCS Method Statement for this type of application.*
- As an exposed wall surface (must be over-coated) *If required as an exposed wall surface Refer: allnex Situclad WCS*

#### Note

allnex generally recommend applying waterproofing to the exterior of a below ground wall.

If it is at all possible to access the below ground exterior wall - use Bituthene 3000 sheet tanking.

Aquakem (Aquaguard 101) is not intended for new work rather it is used for remedial work where the wall exterior is no longer accessible.

#### PERFORMANCE DATA

| Properties  | Values   |  |
|---|--|--|
| Minimum Thickness:  | 1mm  |  |
| Minimum Application Temperature: Air                                      | +10°C  |  |
| Maximum Application Relative Humidity: Air                                | 85%  |  |
| Moisture vapour permeability BS test method 3177:1959                     | 9.4gms, mil.m <sup>2</sup> /24 hours.  |  |
| Non-toxic: approved for potable water                                     | AS4020 (int) – 1994  |  |
| Exceeds the waterproofing requirement of the US Federal spec 11-P-001411. | Tested to withstand up to 40 psi hydrostatic pressure<br><i>(Equivalent to 28 metres head of water).</i> |  |
| In-service temperatures - wet : on fully cured system                     | -20 to +55°C   |  |
| Adhesion to correctly prepared substrate                                  | 1.5MPa minimum – Concrete Failure<br>GB2567-2008. 2.77(KJ/m <sup>2</sup> ). - Concrete failure           |  |
| Laminate hardness:  | DIN-SHORE 65; PENCIL 6H  |  |
| Heat resistant  | +55°C  |  |
| Solids Volume - Mixed   | 42%  |  |
| Solids Weight - Mixed   | 56%  |  |
| SG kg/litre   | 1.25   |  |
| Surface Dry:  | +25°C ~50%RH   | 4 hours  |
| Hard Dry:   | +25°C ~ 50%RH  | 24 hours   |
| Recoat time:  | ~ Minimum  | 2 hours<br><i>In good conditions (Heat   Air flow) the second coat could be done on the same day.<br/>If you can walk on the basecoat without it “sheering” under your feet then you can apply the second coat of Aquakem.<br/>Generally the first coat will be dry enough after two (2) hours at 25°C</i> |
|   | ~ Minimum  | 24 hours   |

#### COLOURS:

Situclad EWS is available in white, may be tinted to pastel colours. Finish –semi-gloss

#### TINTING:

May be tinted to pastel colours with universal paint stainers *up to 4% by volume in Part A* before mixing two parts.

#### HEALTH & SAFETY: Refer safety data sheets (SDS).

- Avoid skin contact.
- Provide adequate ventilation.
- Wear safety equipment including clothing.

#### SUBSTRATE:

All substrates shall be stable and solid.

#### GREEN CONCRETE:

Situclad EWS can be installed on green concrete. *Normally the age of the concrete should be 28 or more days.*

Situclad EWS however may be applied at around 7 days.

However; it is preferable to allow as long as possible for the concrete to cure and dry. E.g. allow 28 days cure time after the placement of the concrete.

It is expected that when installing in this situation, the concrete will have been protected from rain since placement.

Green / saturated concrete is not a suitable base.

In all instance’s normal preparation (shot-blasting or grinding) is still required prior to the installation of the Situclad EWS.

QUALITY ASSURANCE:

The allnex approved Applicator shall ensure all QA checks have been undertaken prior to the installation process and subsequently during the installation process. The completed documentation must be made available to allnex and the client/clients authorised personnel. The product is to be installed within the required control range to ensure a fully cured hard wearing monolithic floor coating system. Information to be recorded daily is:

- Concrete sub-base or prefill mix.
  - Sequence of mixing, ratios and quantities and formula.
  - Ambient temperature | Ambient relative humidity.
- Material batch numbers used.
  - Substrate moisture content & Substrate temperature.
  - Daily detail of licenced contractors on-site.

CLEANING & MAINTENANCE:

Cleaning:  
Refer: *Cleaning Maintenance Document*

Repairs:  
Can be undertaken with further new Situclad EWS applied directly.

Resurfacing:-  

- Re-surfacing with further coats of Situclad EWS.

FIXING OF FRAMING | PLANT | MACHINERY :

Mechanical fixings into the substrate must be resin fixed. Fixings are generally installed prior to the application of the Situclad EWS. Fixings installed post the installation of the Situclad EWS must be undertaken in a manner that ensures that the completed installation remains fully waterproof.

Fixings - Installation Materials:

| Floors                 | Walls                   |
|------------------------|-------------------------|
| allnex K80 epoxy grout | allnex K125 epoxy paste |

Note  
*Epoxy injection systems may be used.*

Conventional expanding plugs, screws or anchors are not an acceptable fixing method.

PRODUCER STATEMENT:

allnex Industries Ltd state that Situclad EWS is fit for the purpose of waterproofing interior surfaces against reverse osmotic pressure and controlling moisture ingress into a building. It conforms to the relevant parts of the New Zealand Building Act.

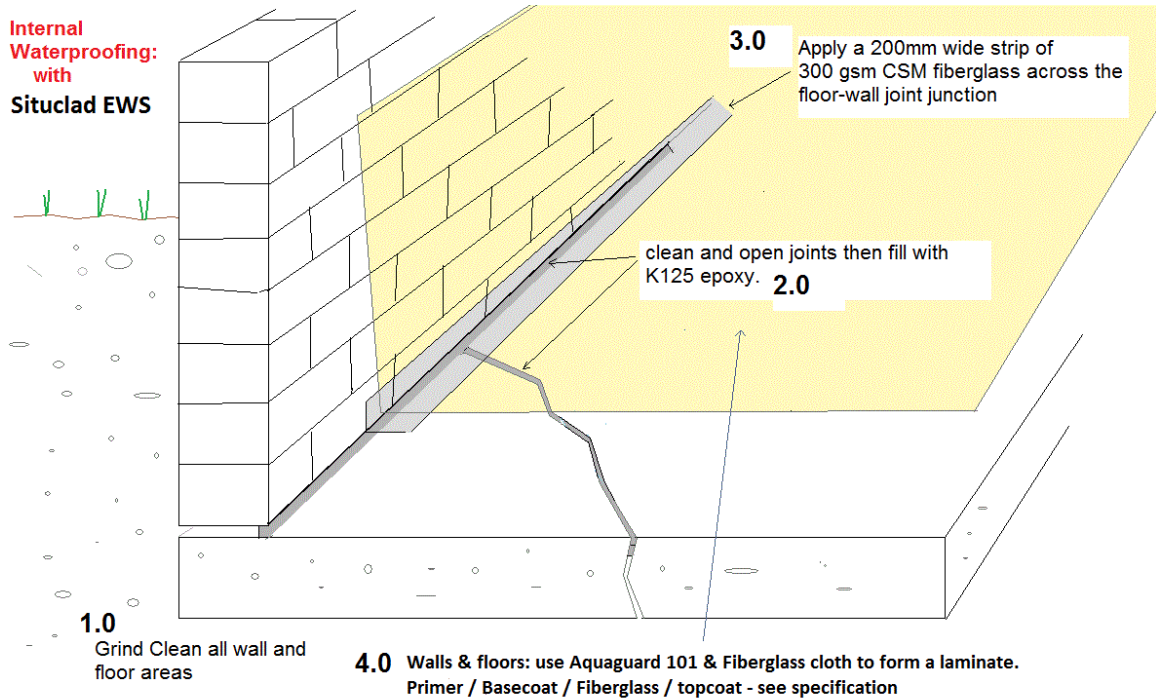
Details:

1. E3 Internal Moisture: 1.0 Condensation control: Situclad EWS will prevent water ingress through walls and floors.

2.0 E3. Water splash: The use of Situclad EWS will act as a waterproof membrane.

3.0. E2 AS1 External Moisture
- 12.2.2 DPM materials part (e) Situclad EWS is an epoxy waterproofing membrane formulated to prevent moisture entering the structure. This product is normally used in retrofit (post applied) applications.

**Internal  
Waterproofing:  
with  
Situclad EWS**



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