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## SITUCLAD ECR (Epoxy –chemical resistant)

Hygienic, Smooth Wall Lining

**GENERAL DESCRIPTION:**

Glass, reinforced, epoxy resin wall cladding system. For use wherever a heavy-duty smooth, seamless, hygienic, easy to clean, gloss finish is required.  
NO odour system. For working in tanks.

**PROPERTIES/ FEATURES:**

- Situclad ECR is a **GRP (glass reinforced plastic) cladding** system applied in situ to provide a smooth, jointless, chemical & impact resistant, hygienic surface, which follows the substrate contours, profiles etc.
- Good stain and chemical resistance. Based on chemical resistant epoxy. (Surecote 500AR)
- Short application period.
- Excellent impact and abrasion resistance.
- Easily cleaned.
- May be applied to a wide variety of surfaces.
- Easily repaired and maintained.
- Complies with Food environment requirements.
- No odour during application. Cured films are non toxic.
- Resistant to peeling and flaking.
- Finish – Gloss to semi gloss. Normally clear
- Laminate thickness (approx) 1.75mm (0.070")
- Laminate hardness – Barcol (934-1) 45
- Colour –clear, pastel colours to order (minimum quantities may apply).
- Minimum application temperature +10°C.
- Fibreglass reinforcing : 450gms/m<sup>2</sup> CSM E matt.
- Surfacing tissue – 25 micron.

**SUGGESTED USES:**

- Heavy duty wall (and floor) lining where the tank needs to be protected from its contents. These tanks are often concrete and this liner prevents attack on the concrete itself.
- Holding tanks.
- Food storage and processing plant.
- Commercial kitchen walls
- Chemical bunds – refer to chemical resistance chart.
- Freezing works, abattoirs, slaughter houses
- Dairy factories.
- Chemical processing plants. Pulp & paper, pulp chests.
- Pharmaceutical filling and processing areas.
- Storage tanks / bunds.: walls and floors

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### Substrates

- Concrete, Precast, masonry, plywood
- Not recommended to be applied to uncured concrete surfaces.  
Concrete: 28 day cure minimum  
75% RH maximum  
18% moisture maximum  
Timber: 12% moisture maximum.  
May go on slightly damp concrete but full surface preparation must occur.
- Laminate should not be radiused less than 6mm around external or internal corners.
- Do not apply over pointed blockwork (pointing must be flushed and cured).

### Preparation

Concrete must be strongly abraded by coarse grinding, shotblast, bead blast or scabbling.. Acid etching is suitable if due care and attention is observed. It should be clearly seen that an etched surface is created. Some tank concretes are quite acid resistant.

### CHEMICAL RESISTANCE:

(Refer to chemical resistance chart)

- Chemical resistance improves with cure. Maximum resistance is achieved after 3 days cure at +20°C. Low temperature cure will extend this period.
- Resistant to fats, oils, most solvents, moderate strength acids and alkalis.
- Not resistant to chlorinated solvents.

### APPLICATION METHOD:

- a) Hand lay-up using laminating rollers to exclude air.
- b) Chopper gun application is possible.. Final wet out by hand. Gel coat with Surecote 500AR resin .by roller.

### COVERAGE RATES:

Supascreed primer	6m <sup>2</sup> /litre
Surecote 500AR resin system	2.5kg/m <sup>2</sup>
Chopped Strand E Matt 450gms/m <sup>2</sup> E matt	
Surfacing Tissue:	25 microns – 1m <sup>2</sup>

(refer to Surecote 500AR techdata for mixing details )

### TOTAL DRY FILM BUILD:

1.75mm approx

### DRY TIMES: (20°C 50% RH)

Laminate must be applied as a continuous process

Resin gel time: 45 minutes

Recoat minimum: 60 minutes

Recoat maximum: 18 hours

(Note after this time severe abrasion of the surface followed by solvent swabbing with Styrene Monomer will be required to ensure satisfactory adhesion.)

Light use: 24 hours

Full cure: 3 days at +20°C

**SITUCLAD ECR** (cont'd)

**MIX RATIOS:**

Surecote 500AR: resin: hardener 3:1 by weight

**SYSTEM:**

The system is applied in this fashion:

1. Apply Supascreed primer to the prepared surface
2. Roll on an application of Surecote 500AR mixed resin.  
Into that wet resin apply the 450gram CSM; sheets overlapped 75mm..  
Laminate well using a laminating roller to ensure all air is removed from the glass laminate.
3. Immediately apply more Surecote 500AR.  
Use laminating roller again.
4. Allow to cure.
5. Apply the surfacing tissue with further coats of Surecote 500AR resin.

**THINNING:**

Not recommended.

**CLEAN UP:**

- Nuplex Universal Cleaning Solvent
- Acetone

**CAUTIONS:**

- Caution when using the solvents.
- Surecote 500AR does not emit harmful odours.

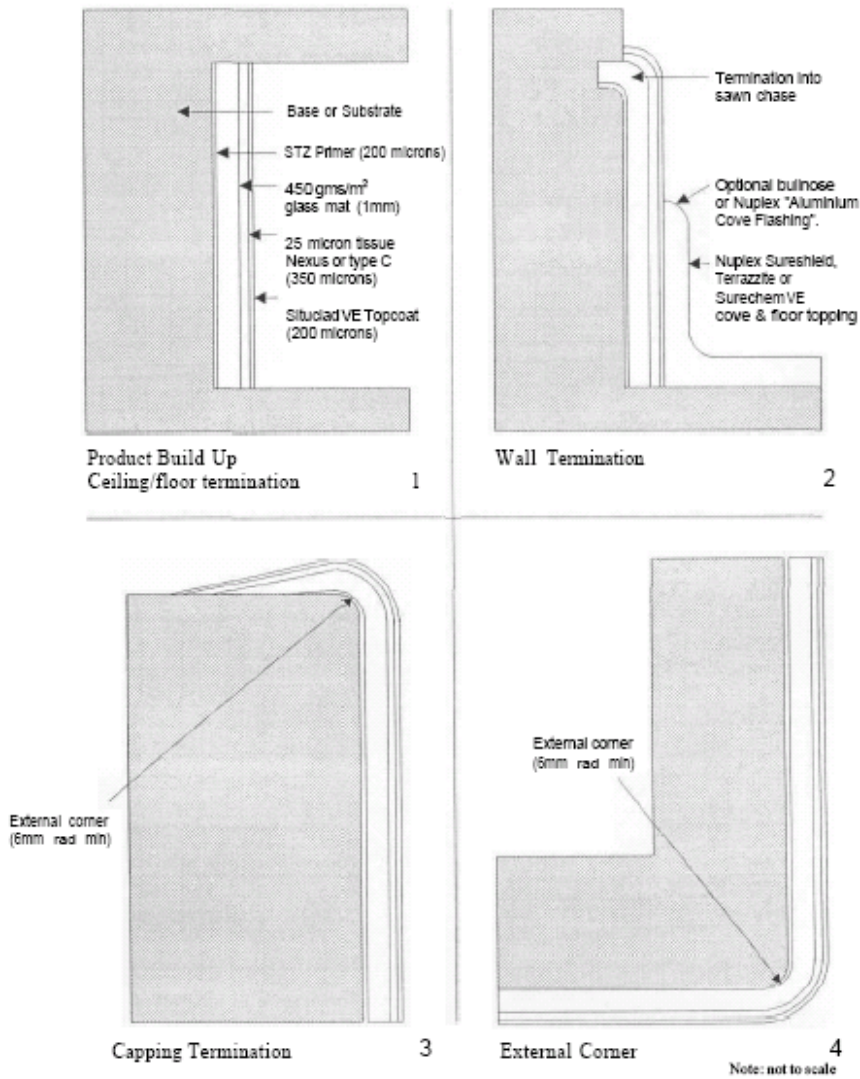
**SITUCLAD ECR (cont'd)**

**Design Details.**

Full details are on our website:

[www.nuplexconstruction.co.nz/protective finishes / liners / design details](http://www.nuplexconstruction.co.nz/protective%20finishes%20/%20liners%20/%20design%20details)

**NUPLEX FIBRECLENE & SITUCLAD VE  
DESIGN DETAILS**



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