

High performance water based decorative and protective facade coating

Uses

As a decorative and protective facade membrane coating to most types of buildings and walls after the recommended primer or surface preparation.

Advantages

- Highly flexible - accommodates movement of pre-existing cracks of up to 1mm
- Excellent resistance to mould and mildew
- Total Colour Solution - can be tinted to any colour
- Can be applied to a wide range of substrates
- Excellent build properties enable application to both horizontal and vertical surfaces
- Available in matt and satin finish
- Excellent resistance to embrittlement
- Excellent resistance to UV, weathering, chloride ions and CO₂
- One component - readily applied direct from pail
- Low VOC level - 55.3 grams per litre
- Easy water clean up

Description

The Emer-Clad Facade system comprises a single component water based, high solids, acrylic copolymer membrane coating.

Emer-Clad Facade is a highly flexible coating containing additives to inhibit the growth of mould, resist bacterial growth and aggressive elements ie: resistant to UV light, chloride ion and carbonation attack.

Emer-Clad Facade dries to form an aesthetically pleasing waterproof protective coating on vertical surfaces and may be applied by brush, roller or airless spray.

For a total waterproofing solution on horizontal surfaces such as balconies, terraces and rooftops, use in conjunction with Emer-Proof membranes.

Design Criteria

Emer-Clad Facade is designed to be applied by brush, roller or airless spray over a selected primer, to achieve a dry film thickness of not less than 250 microns in two coats on vertical surfaces. Refer to application instructions for details.

Maintenance

No special requirements, any damage identified during normal inspections should be repaired or replaced as appropriate.

Cleaning

Cleaning of exterior facade coatings should be done using a neutral pH cleaner or detergent and applied to the surface using a soft bristle broom. Rinse off thoroughly with clean water under a low pressure spray. In coastal areas more regular cleaning may be required to prevent the build-up of salt contamination, every 6 months is recommended.

Properties	
Total Colour Solution:	Bases: White, Deep, Ultra Deep and Extra Bright.
Volume solids:	53% (Matt white) 45% (Satin white)
Physical or chemical change:	Dries through loss of water
Drying (25°C, 50% RH):	
Tack free:	30 minutes
Recoat:	2 hours
Fully dried:	7 days
Application temperature:	10°C - 30°C
Carbon dioxide diffusion resistance (AS/NZS 4548.5-1999)	
Equivalent thickness of air(R):	Matt 255m Satin 281m
(Note: To protect concrete from carbonation, R must be at least 50m - Klopfer criteria)	
Equivalent thickness of 30MPa concrete cover (Sc):	Matt 640mm Satin 700mm
Carbon Dioxide Diffusion Coefficient cm²/sec:	Matt 1.6 x 10 ⁻⁰⁷ Satin 1.7 x 10 ⁻⁰⁷
Water vapour transmission resistance (AS/NZS 4548.5-1999)	
Vapour Transmission Rate of composite:	Matt 42.0g/m ² /24hours Satin 32.2g/m ² /24hours
Equivalent thickness of Air (S_p)m:	Matt 1.0 m Satin 1.0 m
Vapour Diffusion Coefficient, cm²/sec:	Matt 1.1 x 10 ⁻⁰⁴ Satin 7.8 x 10 ⁻⁰⁵
Water Transmission Resistance (AS/NZS 4548.5-1999)	3g/48h/m ² /kPa 3g/48h/m ² /kPa
Chloride Ion Diffusion Co-efficient m²/sec: (AS/NZS 4548-5-1999)	Matt 2.0 x 10 ⁻¹² Satin 1.0 x 10 ⁻¹²
Cyclone testing (ASTM E514 Class A-E):	Class E (Highest) Independantly Tested - No Penetration
Exterior durability results on FC panels:	
Cape Shank (Coastal)	239 months
Port Melbourne (Industrial)	210 months
Yallourn (Industrial)	189 months
Darwin (Tropical)	233 months
No integrity failure on any of the panels at all the above sites - GPC Scientific Services Laboratory.	
VOC Content: (ASTM D 3960-05)	59.4 g/litre (Matt) 55.3 g/litre (Satin)
Tensile Stress (MPa)	2.03
Elongation (%)	400

Emer-Clad® Facade

Application Instructions

Surface preparation

Concrete, Render, Brick, Masonry, Fibre Cement Panels:

Thoroughly clean down surfaces by stiff brush, scraper, etc., to remove all laitence, dirt, dust or other contamination to leave sound, clean, dry surfaces free from all residues.

Prime: One coat of Emer-Clad Water Based Primer or Emer-Clad Solvent Based Primer.

Emer-Patch repair products

Use Emer-Patch Skim Coat to cover any surface imperfections or level the surface. Emer-Patch Repair High Build can be used for larger concrete repairs.

Prime: One coat of Emer-Clad Solvent Based Primer.

Mould infested surfaces:

Scrape or clean thoroughly; all finishes lifting or badly infested should be removed. Wash down with a water-soluble fungicide or one part domestic bleach to eight parts water, scrubbed into the affected area, then rinsed clean of residues. Make good any defects and allow walls and repairs to completely dry.

Prime: One coat of appropriate primer depending on substrate.

Iron or Steel:

Grease or oil to be removed with degreasing solution. Wire brush/shot or sand blast metal. All dust/dirt to be removed.

Prime: One coat of Emer-Clad High Bond Primer.

Note: failure to properly coat the metal with primer will result in surface staining and/or significantly diminish the protection of the iron or steel.

Rusty Iron or Steel:

Remove loose rust and paint particles with wire brushing. Sound areas of remaining paint should be roughened to obtain a good mechanical key. Loose flakes or corroded metal must be chipped away.

Pre-treatment: Application of a suitable tannin phosphate rust converter according to the suppliers instructions.

Prime: One coat of Emer-Clad High Bond Primer.

Aluminium/Zinc/Copper/Brass/Galvanised Iron:

A suitable metal etch solution to suit acrylic coatings may be required prior to priming with Emer-Clad High Bond Primer and application of Emer-Clad Facade. Adhesion testing is advisable.

Sound, Previously Painted or Primed Surfaces:

On existing sound acrylic coatings, scrub with detergent and water, allow to dry. No primer required. If coatings are delaminating then remove all loose and delaminating coatings back to a sound firmly adhered edge then apply one coat of Emer-Clad Solvent Based Primer.

Timber surfaces:

Prime with one coat of Emer-Clad Water Based Primer.

Powdery Paintwork or Absorbent Masonry Surfaces:

Should be sealed with one coat of Emer-Clad Solvent Based Primer.

Overcoating old Emer-Clad:

Clean the surface with mild detergent, rinse with clean water, allow to dry.

No primer required if the existing Emer-Clad is sound and in good condition. If existing Emer-Clad is delaminating then remove all delaminating coatings back to a firmly adhered edge then apply one coat of Emer-Clad Solvent Based Primer.

Application

Use a 12mm nap roller to apply the Emer-Clad Facade to smooth surfaces and use a 20mm nap roller on rough or textures surfaces.

A texture profile can also be achieved by applying the Emer-Clad Facade using a black medium texture roller on the first coat and finish with a nap roller on the second coat.

Application of a textured profile finish will consume more material. When cutting in edges, brush and roll-in a continuous process to avoid differences in gloss level.

Application on single areas should be completed uninterrupted. In direct sunlight or hot conditions, the drying rate of the Emer-Clad Facade will be very fast.

If possible, avoid applying the Emer-Clad Facade during the hottest part of the day, or work in a team to ensure a wet edge is maintained during application.

Note: the addition of Dulux Hot Weather thinner at a rate of 450ml per 15L drum can help to extend the wet edge time of Emer-Clad Facade during fast drying conditions. This should be added to the Emer-Clad Facade and mixed thoroughly using an electric mixer only, do not mix in by hand.

Movement joints

Ideally, Emer-Clad Facade should not be applied over movement joints as the amount of movement may be more than the capability of the membrane. Joints should be first sealed with the appropriate joint sealant then the Emer-Clad Facade applied up to the edge of the joint. When this is not practical, all expansion and movement joints should be sealed with Emer-Seal Joint Sealant Paintable FC. Polyurethane sealants should be avoided as they can bleed plasticisers into the coating above. In all applications where Emer-Clad Facade is applied over movement joints or at floor to wall junctions, Emer-Clad Facade must be reinforced with a suitable fabric such as Emer-Clad Fabric Reinforcing Tape (refer to TDS). The Emer-Clad Fabric Reinforcing Tape must extend at least 50 mm either side of the joint.

Glass fibre reinforcing must not be used as glass fibres reduce the elasticity of the membrane and are difficult to wet through.

Emer-Clad® Facade

Glass fibre mat reinforcing has been shown to create a weak delamination layer in the membrane and glass fibres that are not fully encapsulated with Emer-Clad Facade have been shown to cause a 'wicking' effect allowing water to pass through the membrane.

Substrate cracks

Emer-Clad Facade is capable of accommodating movement of existing cracks up to a 1mm when applied at a minimum of 250 microns dry film thickness.

Spray Application

When being applied to well prepared surfaces (no blow holes) it is possible to spray apply Emer-Clad Facade in a single coat to achieve the 250 micron dry film thickness (500 micron wet film thickness). This can be a substantial time saving on a project. Suitable equipment includes Graco 795 or Graco 1095 airless running at 3000 psi and utilising 19 thou or 21 thou spray tips.

Drying times

At normal temperature, 18°C to 20°C, Emer-Clad Facade will dry and can be recoated within 2 hours after application. In very cold or humid weather, allow overnight drying between applications. Do not apply at temperatures below 10°C, or when temperature may fall below 10°C during the drying period.

Colour

Emer Clad Facade can be tinted to a wide range colours from the following bases White, Deep, Ultra Deep and Extra Bright.

Emer-Clad Facade is available in Matt or Satin finish.

Cleaning

Tools and equipment should be cleaned with water immediately after use.

Estimating

The coverage figures are theoretical – due to wastage factors and the variety in nature of possible substrates, practical coverage figures may vary accordingly.

Supply

Emer-Clad Facade: 15 litre plastic pail 4m ² / litre / coat (2 coats required)	
Emer-Clad Matt White Base	FE100100-15L
Emer-Clad Matt Deep Base	FC000685-15L
Emer-Clad Matt Ultra Deep Base	FC000686-15L
Emer-Clad Matt Extra Bright Base	FC000687-15L
Emer-Clad Matt Light Grey	FC061723-15L
Emer-Clad Matt Mid Grey	FC061724-15L
Emer-Clad Satin White Base	FE100200-15L
Emer-Clad Satin Deep Base	FC000681-15L
Emer-Clad Satin Ultra Deep Base	FC000682-15L
Emer-Clad Satin Extra Bright Base	FC000683-15L
Emer-Clad Satin Light Grey	FC061703-15L
Emer-Clad Satin Mid Grey	FC061704-15L
Emer-Clad Water Based Primer: 15 litre pails 10 - 12m ² / litre	FC061785-15L
Emer-Clad Solvent Based Primer: 4 litre pails 20 litre pails 7 - 10m ² / litre	FC061791-4L FC061791-20L
Emer-Clad High Bond Primer: 4 litre pails 13m ² / litre	FE100220-4L
Emer-Clad Reinforcing Tape 100mm x 50m Roll 1.2m x 100m Roll	FC000937-UNIT FC000940-UNIT

Storage

Store in dry conditions between 5°C and 30°C in original, containers. If stored at high temperatures, the shelf life may be reduced.

Important notice

A Safety Data Sheet (SDS) and Technical Data Sheet (TDS) are available from the Emer website. Read the SDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

Product disclaimer

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.



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