

Technical Data Sheet

Emer-Clad Architectural

A 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

- Proven track record for over 25 years
- Safe to use, water borne acrylic formulation
- Highly flexible - accommodates movement and minor cracking of substrates
- Available in a range of colours - able to be colour matched
- 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
- Easy water clean up



DESCRIPTION

The Emer-Clad system comprises a single component water based, high solids, acrylic copolymer waterproof membrane coating and is available in matt or satin finish.

Emer-Clad is a crack-accommodating 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 dries to form an aesthetically pleasing waterproof protective coating and may be applied by brush, roller or airless spray.

DESIGN CRITERIA

Emer-Clad 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. Please refer to the Emer-Clad Waterproofing Technical Data Sheet for information on the application of Emer-Clad on flat roof areas.

PROPERTIES

Colour:	6 standard colours plus special colours made to order
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):	
(Note: To protect concrete from carbonation, R must be at least 50M - Klopfer criteria)	
Equivalent thickness of air(R):	Matt 255m Satin 281m
Equivalent thickness of 30MPa concrete cover (S_c):	640mm Matt 700mm Satin
CO₂ Diffusion Coefficient cm²/sec:	1.6 x 10 ⁻⁰⁷ Matt 1.7 x 10 ⁻⁰⁷ Satin
Water vapour transmission resistance (AS/NZS 4548.5-1999)	
Vapour Transmission Rate of composite:	Satin 32.2g/m ² /24hours Matt 42.0g/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
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.	
Chloride Ion Diffusion	
Co-efficient m²/sec:	2.0 x 10 ⁻¹² - Matt
(AS/NZS 4548-5-1999)	1.0 x 10 ⁻¹² - Satin
Water Transmission Resistance (AS/NZS 4548.5-1999)	
	Satin 6g/24h/m ² /kPa Matt 4g/24h/m ² /kPa
Chemical resistance:	Emer-Clad is unaffected by a range of mild acids, alkalis, and is resistant to bio-deterioration

VOC Content:

(ASTM D 3960-05)	59.4 g/litre (Matt)
	55.3 g/litre (Satin)

MAINTENANCE

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

SPECIFICATION CLAUSES

DECORATIVE WATERPROOFING FACADE COATING

The decorative waterproofing coating shall comprise a suitable primer system (if required), overcoated with Emer-Clad Matt/Satin, single-component elastomeric coating suitable for application by brush, roller or spray. The total dry film thickness of the coating shall be not less than 250 microns and shall be capable of providing carbon dioxide diffusion resistance equivalent to not less than 250 metres of air. It must exhibit a water vapour transmission resistance S_d not more than 1.0 metres.



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.

Use Emer-Patch Smooth patching compound to fill minor cracks or level the surface. Fill cracks and joints with acrylic gap filler.

Prime: One coat of Emer-Acrylic Sealer or Emer-Coat Clear Sealer.

DAMP SURFACES - ENTRAPPED MOISTURE:

Seek technical advice from Parchem.

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-Gard Primer Type 2.

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.

1st Coat: One coat of Emer-Tan rust converter

Prime: One coat of Emer-Gard Primer Type 2

ALUMINIUM/ZINC/COPPER/BRASS/GALVANISED IRON:

Oxidised surfaces and other contaminations should first be removed with Emer-Clean etch solution. Emer-Coat Special Primer may be used to further increase protection.

SOUND, PREVIOUSLY PAINTED OR PRIMED SURFACES:

Acrylic: 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-Coat Clear Sealer.

Enamel / Oil Based: Depends on underlying substrate. For steel, abrade and apply Emer-Gard Primer Type 2. Other substrates refer to your local Parchem sales office.

TIMBER SURFACES:

Treat previously painted surfaces as above.

Prime: One coat of Emer-Acrylic Sealer.

Note: do not apply Emer-Acrylic Sealer over old oil based paints.

POWDERY PAINTWORK OR ABSORBENT MASONRY SURFACES:

Should be sealed with one coat of Emer-Coat Clear Sealer.

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-Coat Clear Sealer.



APPLICATION

Apply Emer-Clad by brush, roller or airless spray to the previously primed surface.

Previously primed and prepared surface: Apply a minimum 2 coats of Emer-Clad protective coating to achieve a dry film thickness of not less than 250 microns.

Coverage approx 2 m² /litre finished film (ie 4 m²/l/coat). First coat to be Emer-Clad Matt. Final Coat to be Emer-Clad Satin or Matt (Satin exhibits better self-cleaning properties).

To visually facilitate coverage and ensure adequate film build, different colours may be used for each coat of Emer-Clad.

Note: do not apply any materials during damp or rainy conditions or where there is likelihood of rain. Temperatures above 30°C reduce the wet edge time and, as with other water based coatings, may increase the risk of showing lapmarks and rollermarks after drying, especially with darker colours.

Dark colours may show slight oxidation over time. This can be removed temporarily by cleaning, but will not affect the performance of the coating.

SPRAY APPLICATION

When being applied to well prepared surfaces (no blow holes) it is possible to spray apply Emer-Clad 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 Grace 1095 airless running at 3000 psi and utilising 19 thou or 21 thou spray tips.

For further information contact:

Phillro Industries (NSW, Vic & Qld) Ph: 1300 503 610

Pumpline (WA) Ph: 08 9271 2265

Blastmaster (SA) Ph: 1800 882 229

DRYING TIMES

At normal temperature, 18°C to 20°C, Emer-Clad 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

Standard colours are shown on a separate Emer-Clad colour selection brochure.

Colour Matching: Emer-Clad is able to be colour-matched to most colours.

Emer-Clad 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:	15 litre pail
Emer-Acrylic Sealer:	4 and 20 litre pails
Emer-Aquashield:	2, 4 and 20 litre pails
Emer-Coat Clear Sealer:	1, 4 and 20 litre pails
Emer-Patch Smooth:	15 litre pail
Solvent 30:	4 and 20 litre pails

PRIMERS	COVERAGE PER COAT	DRYING TIME @ 20°C	CLEAN
EMER -			
Coat Clear Sealer	7 - 8 m ² /L	2 - 3 hrs	Thinners*
Acrylic Sealer	12 m ² /L	2 hrs	Water
Bond	10-12 m ² /L	2 hrs	Water
Coat Special Primer	10-12 m ² /L	4 hrs	Thinners*
Gard Primer Type 2	10 m ² /L	2 hrs	Thinners*
Aquashield	6 m ² /L	16-24 hrs	Water
Tan	15 m ² /L	4 - 6 hrs	Water
TOP COAT			
Emer-Clad (2 coats)	4 m ² /L	2 - 4 hrs	Water
*Solvent 30			

STORAGE

SHELF LIFE

24 months if kept in a dry, cool storage area.

STORAGE CONDITIONS

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

IMPORTANT NOTICE

A Material Safety Data Sheet (MSDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. Read the MSDS 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.