TECHNICAL DATA SHEET

PRO LEVEL MOISTURE SEAL

Epoxy Water Vapour Barrier

DESCRIPTION

Pro Level Moisture Seal is a high performance; water based 2 component epoxy moisture and vapour barrier formulated to prevent water seepage and permeation in building and construction substrates. Approved for use with potable drinking water and conforms to AS4020.

FEATURES

- Water clean up
- Withstands high levels of hydrostatic head of water pressure up to 25 metres or 250 kPa
- Convenient equal part mixing ratio by volume
- Approved for use with potable (drinking) water, conforms to AS4020 (1992)
- Tested to ASTM E96 for water vapour transmission
- Australian made
- Environmentally friendly
- Nonflammable, negligible odour and toxicity
- Prevents rising damp and the formation of efflorescence
- Excellent adhesion to brick, masonry, concrete, blockwork, stone, timber, porous ceramic tiles
- Can be over-coated with majority of decorative or industrial coatings such as epoxy

RECOMMENDED USES

- In-situ concrete
- Brick, block and stone work
- Fibre cement and AAC systems
- Pre cast and tilt up panels
- Curing compound over green freshly laid concrete
- As a moisture barrier preventing water seepage or dampness through floors and walls

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

- All surfaces to be treated must be structurally sound and all previous coatings, adhesives, efflorescence or laitance should be removed by high pressure water blasting, mechanical scrubbing, grinding or other suitable means.
- All surfaces must be cleaned free from dirt, grease, oil or other surface contaminants.
- Holes, non-structural cracks and other surface deformities should be repaired using Pro Level Rapid Patch in accordance with the technical data sheets.
- Very porous or 'boney' concrete may require 3 coats of Pro Level Moisture Seal. The first coat acting as a primer, penetrating into the pores of the concrete.
- Ensure re-coat times are adhered to between applications (refer to precautions). A minimum of 2-3 hours is required between coats, preferably overnight if temperature is below 20˚C.

MIXING

- Mixing should be by means of a mechanical forced action mixer with a high shear stirrer.
- Premix each individual component to form a homogeneous paste.
- Combine the two components by equal volume mixing thoroughly for a minimum of 5 minutes until a homogeneous blended paste is obtained.
- Avoid trapping air during mixing; this may cause pinholing in the coating during application.
- Only mix as much as may be used within the pot life of the product.

TIMBER FLOORING INSTALLATION

- As a low vapour transmission barrier on concrete floor slabs to prevent moisture migration and subsequent swelling of timber flooring systems (mandatory if moisture content of slab exceeds 5.5% or 70% relative humidity).
- Highly recommended for use prior to any application of timber floors.
- As a moisture barrier on concrete prior to application of timber flooring or floor leveling compounds.
- As a moisture barrier on the negative side in below ground substrates such as retaining walls, car parks, basements assess shafts.

BUILDING & CONSTRUCTION APPLICATION

- As a low pressure head, water transmissions vapour barrier coating to prevent moisture vapour penetration through ground floor slabs.
- To prevent water seepage and permeation through exterior walls and floors.
- As a highly tolerant moisture and vapour barrier in water storage tanks, tanking applications, reservoirs and swimming pools.
- As a curing compound coating over freshly laid (green) concrete.
- As an excellent vapour barrier coating prior to the application of the building products such as cementitious repairs, screeds, epoxy floor toppings and coatings.
- Also suitable for use with commercial paints, tiling systems, and soft and hard floor coverings.
- Safe to use in sensitive locations (e.g., around food or habitable areas).

COATING APPLICATION PROCEDURE

- Pro Level Moisture Seal is a minimum 2 coat system. The coverage rate as specified must be achieved to ensure transmission barrier and low permeability is obtained.
- In all applications of Pro Level Moisture Seal, it is critical that a final, dry film coating thickness of 200 microns is achieved. Dry thickness (wet film) less than this will compromise the effectiveness of the moisture barrier.
- Applying with a brush or roller, ensure to work the material into the substrate surface to fill voids and eliminate pinholing.
- During the curing process, Pro Level Moisture Seal will experience approximately 50% evaporation loss from each coating application. (Wet 200 microns will dry to 100 microns).
- As application progresses, test the coating depth at random points with a wet film gauge/ comb to 200 microns.
  DO NOT APPLY LESS THAN 200 MICRONS.
- Applying the two coats with this method, and allowing for the evaporation loss, the final dry film thickness should be achieved as specified.

Extreme care is necessary, and if required, protection should be provided to ensure Pro Level Moisture Seal is not damaged in any way between or after final coating.

COVERAGE

Pro Level Moisture Seal is designed to be applied in two coats to achieve a minimum, finished, dry film thickness of 200 microns. Apply the first coat at 4m²/ litre (square metres per litre). Second coat at 4 m²/ litre. Coverage dependent on surface porosity and substrate conditions.

IMPORTANT NOTES

- Pro Level Moisture Seal cure rates will be dramatically reduced if relative humidity is above 80%.
- Pro Level Moisture Seal should never be diluted.
- Do not apply to steel or metal surfaces as corrosion will occur.
- Pro Level Moisture Seal is not trafficable and must be covered with floor toppings, coatings or conventional coverings prior to foot or vehicle traffic introduction.
- In enclosed areas, such as water tanks or reservoirs, ventilation should be provided during curing cycle to enable adequate evaporation of the coating.
- Allow to cure for a minimum of 24 hours at 25˚C/50% R.H. before applying adhesives, mortars, decorative coatings or other surface treatments.

- Pro Level Moisture Seal will tend to discolour and turn yellow when exposed to UV light.
- Discard any material that has exceeded the pot life or working time of the product.
- Do not apply over any substrates that have been previously treated or coated with curing compounds, PVA concrete bonding agents or acrylic coatings. These areas must be mechanically cleaned by grinding or shot blasting to produce a contamination free surface.

FLOOR LEVELING APPLICATION

- Where a floor leveling compound is to be used over Moisture Seal, allow the two coats of Pro Level Moisture Seal to dry for a minimum of 24 hours at 25˚C/50% R.H. Prime with a non-porous primer such as Pro Level Epoxy Prime as per specifications (refer to Technical Data Sheet) and allow to dry for 2-3 hours before applying the selected product from the Pro Level range.
- Pro Level Moisture Seal cure rates will be dramatically reduced if substrate surface or ambient temperature is below +10˚C.
- If Pro Level Moisture Seal is applied in cold or cooler climatic conditions, substrate temperatures can produce amine blush, resulting in an oily residue and/ or areas of uncured tacky discolouration (usually off white or yellow)
- If amine blush or any other form of surface contamination or discolouration appears on the coating, Pro Level Moisture Seal should be allowed to cure and then be washed with clean fresh water.
- Ensure thorough removal of contamination prior to the application of any further coating. This will eliminate possible delamination between coatings.
- Follow the mixing instructions exactly. Mixing slightly longer (e.g. extra 1 minute) after homogeneous paste is obtained is better than under mixing
- In cold temperatures less than 10˚C, allow the product to stand for approximately 5 minutes after mixing this will assist in accelerating the drying reaction.
- In extremely cold conditions, it is recommended that you ensure the Moisture Seal is conditioned to 20˚C prior to use.
- If possible, store the Pro Level Moisture Seal in a 20˚C environment 24 hours prior to use.
- If substrate surface area is less than 5˚C apply by air blower or use a fan after application, this will assist in obtaining efficient curing efficiency.
- Ensure adequate room ventilation on completion of coating.

PAINTABLE

Compatible with most conventional, commercially available paints, industrial surface coatings such as epoxy, acrylic, polyurethane and polyester. To ensure compatibility of any coating, it is recommended that a trial or test area be conducted.

PROPERTIES	
Colour/s	A: White B: Grey
Appearance (mixed)	Brushable/ rollable uniform paste. Grey colour
Finish	Satin/ Matt
Flammability	Product is non-flammable and poses no fire risk
Mixing Ratio	1:1 (component A:B) by volume
Pot Life	1 hour at 35˚C 2 hours at 25˚C
Re-coat time	3-4 hours @ 25˚C & 50% RH depending on concrete porosity
Water vapour barrier permeance	0.12g/24 hrs/M²mmHg @ 32˚C and 50% RH
Full Cure	5-7 days @ 25˚C and 50% RH
Dry Film Thickness	100 microns
Application of adhesive/ coverings	24 hours @ 25˚C & 50% RH
Specific Gravity	Approx. 1.25 @ 25˚C & 50% RH
Wet Film Thickness	200 microns

STORAGE SHELF LIFE

Unopened containers can be stored for up to 12 months in a cool, dry and weatherproof environment. Do not allow contents to freeze.

PACKAGING

Pro Level Moisture Seal is supplied in 8 and 10 litre units.

CLEAN UP

Wash all equipment in water or water/ detergent immediately on completion of application and mixing. Pro Level Moisture Seal will cure under water; hence ensure dirty equipment is not left soaking in water.

HEALTH AND SAFETY

Please refer to full MSDS (material safety data sheet) for this product, which is available from Pro Level upon request or through prolevel@optusnet.com.au

TECHNICAL SUPPORT

Pro Level offers a comprehensive range of high quality and performance construction products. In addition, Pro Level offers technical support and on-site advice to specifiers, end users and contractors.

Please contact Andrew Nauta on 0414 570 353 for this service.

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