

Bituthene®

Cold Applied, Self-Adhesive Sheet Membrane

Description

The original cold applied, non-hazardous self-adhesive sheet membrane invented by W.R. Grace in 1965. Its unique, proven qualities continue to protect major projects in Australia and worldwide.

Uses

Ideally suited to lift pits, basement under slab and wall tanking, cut and cover tunnels, podiums, balconies, roof, car parks, bridge decks, planters and all landscaped areas.

Features

- No toxic or hazardous ingredients
- Immediate access for finishes
- Cold applied and self-adhesive
- Guaranteed uniform thickness
- Laminates to the substrate completely
- Permanently flexible, tough double barrier membrane
- No slip-sheet required for toppings
- Self-sealing to minor punctures
- Fully compatible with Grace Preprufe® and Chemind membrane systems

Grades

Bituthene® 2000

- Multi purpose, cost-effective membrane for under slab, retaining walls, lift pits and podium slabs. Also used for heavy duty, double layer applications.

Bituthene® 3000

- Premium quality, heavy-duty tanking membrane for all civil and commercial applications.
- Used for basements, lift pits, tunnels, podiums, landscaped areas, planters, balconies, roof

Bituthene® 5000

- Exclusively designed to allow for hot asphalt paving to be placed safely by hot-mix paving machines. Used for car parks, bridge decks, ramps, helipads and access driveways.

Bituthene® Grace Ice & Water Shield

- GIWS prevents condensation damage to plywood under copper, stainless steel or metal roofing.
- Prevents ingress of wind-driven rain beneath roof coverings such as slate, shakes or shingles.

Typical Properties

	Bituthene® 2000	Bituthene® 3000	Bituthene® 5000	Bituthene® GIWS
Colour	Grey-Black	Grey-Black	Black	Grey-Black
Thickness	1.0 mm	1.5 mm	1.6 mm	1.02 mm
Roll Size	1 m x 30 m	1 m x 20 m	1 m x 20 m	1 m x 20 m
Tensile Strength (ASTM D882)	40,000 kN/m ²	40,000 kN/m ²	40,000 kN/m ²	1720 (ASTM D412)
Elongation (ASTM D412)	150%	300%	100%	250%
Hydrostatic Resistance (ASTM E96)	5 m	60 m	N/A	N/A
Lap Adhesion (ASTM D1876)	648 N/m	683 N/m	N/A	N/A
Puncture Resistance (ASTM E154)	250 N	250 N	900 N	N/A
Permeance (ASTM E96)	< 2 ng/m ² sPa	< 2 ng/m ² sPa	N/A	< 3 ng/m ² sPa

Preparation

Surfaces to be waterproofed must be sound, smooth and free from dust, loose matter, oil, grease or other contaminants.

Concrete must be cured for a minimum of 28 days or contact Chemind Technical Dept. All surface defects shall be repaired using Chemind Chembond modified mortar.

Use Chemind Chemflex PU sealant to fill joints, cracks and form fillets to internal corners or penetrations.

Application

Detailing

Detail all internal corners, turn-ups, outlets, pile caps and penetrations with Bituthene[®] Liquid Mastic Membrane to give a minimum dry film thickness of 1.0 mm.

Priming

- Apply one coat of Bituthene[®] Primer at a rate of 5-7 m²/litre and allow to dry.
- Grace Ice & Water Shield - GIWS does not require priming on clean plywood.

Joints

- Apply 200 mm of Bituthene[®] membrane strip to all joints and footings.

Application of Continuous Membrane

- Vertical
 - ♦ Apply Bituthene[®] membrane cut to length (max. 2.5 m), by peeling back 300 mm of release paper and pressing onto the primed surface.
 - ♦ Smooth out by hand from centre to edges (as for wallpaper).
 - ♦ Pull release paper down progressively while smoothing surface. If end laps are necessary, lowest sheet is laid first to provide a shingle type overlap.

- Horizontal
 - ♦ Lay Bituthene[®] membranes from the low point to the high point across the fall line, so that the laps shed water.
 - ♦ Use 65 mm side and end laps and roll firmly to ensure a watertight seal.

Surfacing

Bituthene[®] is not UV resistant but can be covered immediately with the following specific surfacing or protective systems.

- Tanking
 - ♦ Prior to any backfilling or landscaping, cover with Chemind Protectoboard or Chemind Rapid Drain.
 - ♦ Use Chemind Renderflash strip at top edge of to provide neat finish.
- Exposed Surfaces
 - ♦ Concrete topping or screeds, paving slabs on Chemind Multi Pads or mortar bed, ceramic tiles on bedding or sand-filled polypropylene synthetic grass.
- Insulated - Thermally
 - ♦ Chemind Roofmate[™] insulation board for guaranteed thermal insulation.
- Insulated - Acoustically
 - ♦ Use Chemind Sound-Shield sound deadening system under tiles etc. to give the required acoustic value.
- GIWS – Metal or other suitable roofing.

Coverage

- Bituthene[®] - Allow 10 -15% wastage
- Primer - 5 m²/litre
- Mastic - 15 litre – Allow 1 pail to 7 rolls of Bituthene[®]
- Bituthene[®] Liquid Membrane - 1 litre/m²

For more information, see the  web site at www.graceconstruction.com.



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