CAT. No. WP-16-2412

WATERSHIELD - 2000

Elastomeric Liquid Waterproofing Membrane

WATERSHIELD-2000 is a single component, elastomeric, liquid applied polyurethane-based waterproofing membrane formulated to give lasting, maintenance-free, and highly superior waterproofing protection for cement-bound and steel substrate. **WATERSHIELD-2000** offers the most advance waterproofing technology and is guaranteed to provide long term performance and the security of water leak-proof environment.

Liquid when applied, but tough rubber when cured, **WATERSHIELD-2000** is the final answer to the building industry's need for a superior maintenance-free, easy-to-apply, versatile waterproofing material that is finding world-wide acceptance, and preference over conventional sheet type and built-up bituminous systems.

APPLICATIONS

For waterproofing or vapor-barrier protection of

- Foundations
- Ground floors
- Split slab
- Car decks (Sandwiched)
- Inverted roofs
- Basement
- Slab on grade
- Tunnels
- Bathroom / (Under tile-screed)

ADVANTAGES

SPECIFICATION

WATERSHIELD-2000 conforms with the pertinent requirements of ASTM C 836.

- Chemical resistant. Resist deterioration from dilute acids, oil, alkali, salts, bacteria, and common fuels.
- Ease in application. Just apply like a paint. No need for skilled labour.
- Applied by roller, brush, or airless spray. Eliminates the use of heating pots, blow torches and sealing tapes.
- Fast application under a wide range of climatic conditions with good tolerance of substrate quality.
- Tenacious adhesion and high elastic recovery.
- High elongation permits membrane to stretch with movement in the substrate.
- Excellent crack-bridging property. Will bridge concrete cracks that have developed or that will develop.
- Continuous monolithic (seamless) layer completely bonded to the substrate eliminates horizontal migration of water between membrane and substrate. Thus even if the membrane is punctured, a leak can only occur directly below the damaged section of the membrane. This means fast location and inexpensive repair. Sheet type membranes requires sealing tapes and/ or blow torches. Water that entered at a seam could travel in any direction and almost impossible to find its source without very expensive digging.
- High coverage. Less waste and no need for cuttings.
- Excellent resistance to cracking and embrittlement.
- Specially formulated to suit Middle East Climate.

TYPICAL PROPERTIES

• Tensile Strength at break (ASTM D412), psi	>180
• Elongation, % (ASTM D412)	>350%
• Hardness (Shore A)	52
• Weight loss (ASTMC 1250)	18%
• Extensibility after heat aging ASTM C1522),	No cracking
• Touch Dry @25/35 degree centigrade	24/18 hours
• Full cure @ 35 degree centigrade	7 Days
• Re-coat interval	72 hours maximum
• Minimum thickness recommended	800 micron (0.80 mm) over concrete
• Recommended number of coats	1 – 2 coats.
• Water Vapor Transmission (ASTM D1653), grams/cm2/24 hours	0.000216
• Adhesion-in-peel (ASTM C794)	1.3 lbf/inch

SURFACE PREPARATION

A clean, dry, level, smooth substrate is essential for optimum durability. Concrete substrate must be sound, dry, smooth and at least 28-day old. It must be free from any dirt, coatings, curing compound, laitance, oil and other contaminants that may affect proper adhesion of the liquid membrane. High spots should be grinded down. Water-jet cleaning is the preferred method and would ensure a clean substrate. For old concrete substrate, preparation involving wet grinding machine followed by water-jet is recommended.

Cracks – should be widened (5 x 10 mm deep), cleaned and filled with ISOTHANE 6040 sealant. Allow sealant to cure for at least 24-hours. Prepare & pre-cut a reinforcing fabric 50-mm wide. Using a paint brush, apply a thin coat of WATERSHIELD 2000 approximately 60-mm wide centered over the filled cracks, embed the fabric, then finally apply a covering layer of WATERSHIELD 2000. Allow to cure for the least 24 hours.

Wall-Floor Joints, Drains, Plumbing Pipes – like treating cracks, reinforce WATERSHIELD 2000 with fiber mesh / cloth. On wall-floor junction, extend reinforced coating at least 100-mm on both sides. Allow to cure for 24 hours then apply additional coat.

PRIMING

Use ISOPRIME 21 for priming. The substrate must be clean and dry. Before using, stir the contents inside the can. Using a short-haired nap roller, apply primer at the rate of 4-6 M^2/Kg. (Note: actual coverage may be less and depends on substrate profile, porosity and thickness). Allow to cure for at least 24 hours.

COATING

Stir the contents of WATERSHIELD 2000 inside the can. Using a short-haired nap roller, apply coating over the primed substrate at the rate of 1 M^2/Kg. Occasionally, check the wet film thickness which should be around 1000 microns.

Allow coating to cure for at least 24 hours before applying the second coat. Apply at the rate of 1.5 M^2/Kg. Allow to cure for at least seven days before laying screed.

NOTES

1. Coating can accept light foot traffic after 24 hours. Full properties are achieved after 7 days. Before this period, protect the coating by erecting temporary board footpaths and cover with plastic sheets.
2. ISOPRIME – 21 and WATERSHIELD – 2000 contains flammable solvents. Keep away from open flames and heat. Always provide ventilation.

SPECIAL NOTES

- Do not apply **WATERSHIELD-2000** or **ISOPRIME 21** on wet or damp substrate.
- Do not apply **WATERSHIELD-2000** on porous surface such as blocks. Porous surface should first be plastered with 1:2 cement: sand screed and primed with **ISOPRIME 21** prior to coating with **WATERSHIELD-2000.**
- **WATERSHIELD-2000** should not be used in areas in contact with potable water.
- **WATERSHIELD-2000** cures in the presence of moisture and once can is opened, the entire contents should be used to minimize wastage.

PACKING /COVERAGE

WATERSHIELD-2000 is packed in 20 kg metal can. Theoretical laying coverage per 20 kg pack is 20 Sq. mtr at 800 mic. DFT. **ISOPRIME 21** is packed in 18 kg pail. Theoretical coverage is 72-108M^2/pail.

NOTE: Theoretical laying coverage only applies to a glass smooth surface and will be lesser as the substrate gets rough. When making quantity estimate, it is normal practice to add 10-15% to the initial estimate to account for wastage and surface irregularity.

SHELF LIFE

Six (6) months from date of manufacture in unopened container stored in warehouse.

HEALTH/ SAFETY

Users are advised to use protective gears – rubber hand gloves, coveralls, eye shield, etc. When working in confined space, use forced-air circulation. Product contains flammable solvents. Keep away from open flames. Refer to MSDS for additional information.

Revised: 03.04.2025

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