

ECODEK

ECONOMICAL ELASTOMERIC SINGLE COMPONENT WATER-BASED WATERPROOFING MEMBRANE

DESCRIPTION

Ecodek is a economical high performance, liquid-applied waterproofing membrane of styrene acrylic polymer. It consists of a very elastic polymer with the inherent flexibility that allows the membrane to accommodate movements in the substrate. It works as a seamless membrane that performs and adapt to any construction requirements in varied climatic conditions.

Ecodek is especially formulated to seal, waterproof and decorate exterior surfaces & roofs at a cost-efficient price. It seals cracks and joints in old or new roofs /walls and simultaneously leaving a seamless finish to the roof surface. Due to its versatility, it can be practically applied to any supported substrates like concrete, asbestos cement, fibre cement and on existing membranes.

USES

- Fire Walls
- Concrete slab roofs
- New & old roofs / walls
- Car porch roofs
- Fibre cement boards
- Gutters

PRODUCT PROPERTIES

Colour	White, Grey, etc
Density	1.2kg/litre of fresh liquid membrane
Maximum Tensile Strength	> 2.5N/mm ² (ASTM D412 - 2006a)
Elongation at Break	> 250% (ASTM D412 - 2006a)
Crack Bridging	2mm - No cracks was observed (ASTM C836:2006)
Weather resistance	UV Resistant (ASTM G 53)
Solid content %	>50% (ASTM 2369)
Durometer Hardness (Shore A)	53 (ASTM D2240-05)

COVERAGE

Specification for walls and firewalls

The system consists of the following sequence;

1. 1 coat of Greenshield Primer (0.1litre/m²)
2. 1 coat of Ecodek (0.3litre/m²)
3. 1 coat of Ecodek(0.3litre/m²)

The finished coating will approximately provide 0.3mm film thickness.

ADVANTAGES

- **Waterproofing** - Prevents further ingress of water in old and new concrete.
- **Vapour Permeability** - Allow vapour transmission to release moisture.
- **Durability** - Enforced with fibre glass matt increases film tensile strength and wear resistance.
- **Flexible** - Polymeric characteristics enable bridging of hairline cracks and accommodate minor joint movements.
- **Weather Resistant** - Excellent resistance to ultraviolet degradation.
- **Trafficable** - Able to withstand regular foot traffic.
- **Cost Effective** - Repairs damaged concrete by direct application without additional re-construction.
- **Ease of Application** - Brush, roller or airless spray applied. **Solvent Free** - Operators do not need extra respiratory protection.
- **Recoating** - After 5 - 7 years, recoating can be done to the surface with a refresher or another finish coat.
- **Ease of Maintenance** - Fungus & mold free on apply surfaces

Specification for concrete and roofs

The system consists of the following sequence;

1. 1 coat of Greenshield Primer (0.1litre/m²)
2. 1 coat of Ecodek (0.3litre/m²)
3. 1 layer of Fibremesh
4. 1 coat of Ecodek(0.3litre/m²)
5. Final 1 coat of Ecodek (0.3litre/m²)

The finished coating will approximately provide 0.5mm film thickness.

NOTE:

* 3 hours is needed for the drying of each coat of Ecodek before the application of the next coat.

* Coverage and Thickness is theoretical and may vary due to different substrates.

Application with Greenseal Fiber Mesh

GS Fibre Mesh is a polyester fibre mesh fabric used as reinforcement in the application of liquid waterproofing where substantial movement is anticipated. It is designed so as to allow Ecodek to pass through; thereby forming a compact reinforced sandwich membrane in the event application problem arises between the top and bottom layers should a high force be applied on it.

Application for using Greenseal Fiber Mesh is as follows:

- Where a layer of polyester fiber mesh is used as reinforcement for better tensile strength of membrane. It shall be laid onto the 1st coat of Ecodek before it is totally dry to enable it to adhere onto the 1st coat and leave to dry. The 2nd coat Ecodek should be applied when it is thoroughly dried.
- For better tensile strength use in conjunction with Greenseal Fiber Mesh.

FEBRE MESH PROPETIES

DESCRIPTION		RESULT
Weave:		Plain
Material (Tex):	Warp: Weft:	22 x 1 x 2 44
Density (counts/inch):	Warp: Weft:	20 10
Unit weight (g/m ²)	Raw: Finished product	54±5 60±5
Content of resin:		≥14%
Tensile strength (N/50mm):	Warp: Weft:	≥650 ≥320
Tensile strength after 28days conditioning in 5% NaOH:	Warp: Weft:	≥50% of original ≥50% of original

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Ensure all surfaces are clean and free from dirt, oil, grease, efflorescence, fungi growth, loose particles and laitance. Horizontal surfaces must be cast to fall as Ecodek will be finishing product to avoid ponding on Ecodek surfaces.

Hack off honeycombs to expose concrete. Remove all chipped and loose particles and clean surface before repairing.

Lastly, repair all hacked off areas with Greenseal Injection Grout / Greenseal 300 mortar.

Ensure new concrete is at least 3 days old before application of Ecodek.

Angle Fillet

- Form an angle fillet of 25 X 25mm with Greenseal Injection Grout / Greenseal 300 at all junctions between slabs and walls.
- Mix 3 parts of Greenseal Injection Grout / Greenseal 300 to 1 part water and mix thoroughly to a mortar consistency and apply with trowel to form the angle fillet.

Outlet Pipe Penetration

- Hack a V groove joint with a depth of 25mm surrounding the outlets and pipes.
- Wash thoroughly the hacked areas to expose the clean concrete surfaces between the outlet pipe and the concrete.
- Mix 3 parts of Greenseal Injection Grout / Greenseal 300 to 1 part water and mix thoroughly to a mortar consistently and apply with a trowel into the hacked V groove and level it to the concrete level.

PRIMER

Apply Greenshield Primer to unpainted clean surfaces for better adhesion.

For painted surfaces, remove all flakes of paint before applying Greenshield Primer.

APPLICATION METHOD

Application for 1 coat Greenshield Primer + 2 coats Ecodek

- Thoroughly clean concrete surfaces free of oil, grease, paint and loose dust, mud and laitance and hose down concrete surfaces thoroughly.
- Ecodek shall be applied in minimum 1 coat Greenshield Primer + 2 coats Ecodek for wall surface.
- The Greenshield primer coat shall be applied at the rate 0.1litre/m² with a proper roller ensuring that all surface of the concrete surface is covered.
- When the primer coat is dry and can accept foot traffic without lifting up of material when step on. This would at least be 2 to 3 hours after the primer coat application.

5. Over the primer coat, roll a first coat of Ecodek at the rate of 0.3litre/m² on top of the primer coat.
6. Wait for the first coat Ecodek to be dry at least 3 to 4 hours later.
7. Then applied the second coat (top coat) of Ecodek at the rate of 0.3litre/m² per coat and then wait for the Ecodek dry.

Application for 1 coat Greenshield Primer + 3 coats Ecodek

1. Thoroughly clean concrete surfaces free of oil, grease, paint and loose dust, mud and laitance and hose down concrete surfaces thoroughly. Ecodek can be applied by using brush or roller over the entire surfaces.
2. The first coat Greenshield primer shall be applied at the rate 0.1litre/m² with a proper roller ensuring that all surface of the concrete surface is covered.
3. Then applied the first coat of Ecodek at the rate of 0.3litre/m² per coat and then wait for the Greenshield primer dry for at least 3 hours minimum before the application of the first coat of Ecodek.
4. Wait for the first coat Ecodek to be dry at least over night or 3 hours minimum and then only applied the second coat of Ecodek at the rate of 0.3litre/m² per coat.
5. Finally apply the final coat (top coat) of Ecodek is to be applied at the rate of 0.3litre/m² per coat and leaving it to cure for at least 3 hours.

Application with Reinforce Fiber Mesh

1. Thoroughly clean concrete surfaces free of oil, grease, paint and loose dust, mud and laitance and hose down concrete surfaces thoroughly. Ecodek can be applied by using brush or roller over the entire surfaces.
2. The Greenshield primer shall be applied at the rate 0.1litre/m² with a proper roller ensuring that all surfaces of the concrete surface is covered. Then wait for 2 hours for it to dry.
3. Then apply the first coat of Ecodek at the rate of 0.3litre/m² per coat. While the first coat Ecodek still wet, lay the Polyester Fiber Mesh over it and ensuring it all flatten and not ringers occurs.

STORAGE AND SHELF LIFE

Ecodek has a shelf life of 12 months. Keep containers tightly closed and away from ignition sources. Do not expose it to direct sunlight or leave it too long in the open air.

PRECAUTION

Do not apply Ecodek if weather is imminent before the coat is dry thoroughly, or when temperature is expected to drop below 5°C.

Then wait for the first coat Ecodek to dry at least 3 hours and apply the second coat of Ecodek at 0.3litre/m². It is important to roll the second coat with sufficient material to cover the Fiber Mesh.

4. When the second coat Ecodek is dry, then apply the final coat (top coat) of Ecodek at the rate 0.3 litre /m² and ensuring all the Fiber Mesh are covered and no holes appears. Leaving it too cure for at least 3 hours.

MIXING

No mixing is required.

CURING

Allow 24 hours between coats. A final curing time of 48 hours is adequate at normal working temperatures. Ensure curing is complete before laying thermal insulation boards, mechanical protect and other coverings.

Low temperatures and high atmospheric humidity will slow down the curing rate, and vice versa.

RECOATING

Recoating is required after 5-7 years, the membrane surface can simply be cleaned and re-coated with a refresher or single top coat.

CLEANING EQUIPMENT

Clean equipment with soapy water followed by rinsing with clean water. Flush mineral spirits through the spray equipment to prevent rust.

PACKAGING AND APPEARANCE

- 5 & 20 litre /pail
- Colours – White, Grey, Black, Light Green (Special color are available through request to Greenseal office.)

Newly applied Ecodek should be protected from rain, extreme heat and moisture during the first few hours.

Please contact Greenseal Products (M) Sdn Bhd for further technical assistance.

HEALTH, SAFETY AND CLEANING

It is recommended that the applicator wears a safety goggles and gloves. Avoid prolonged contact with exposed skin, and keep away from mouth and eyes. In case of skin contact, wash areas with soap and water. If contact with eyes, rinse thoroughly with clean water.

Seek medical attention immediately if irritation persists.



Guarantee

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