cemseal®

Technical Data Sheet

CEMSEAL EC

LIQUID APPLIED ELASTOMERIC WATERPROOFING COATING SYSTEM

DESCRIPTION

CEMSEAL EC is a specially formulated three-component, liquid-applied, seamless elastomeric exposed waterproofing system. The composite system combines a rubberized flexible base coating with a traffic-bearing coloured top coat to form a seamless, joint-free waterproofing membrane.

The base coat is a specially formulated water-based, two-component flexible cementitious waterproofing compound that forms a greyish-black elastic membrane after application and curing. The top coat is an elastomeric acrylic polymer blended with specially graded materials and quartz aggregate, designed to bond well to the base layer.

FEATURES AND BENEFITS

- UV and weather resistant.
- Seamless and joint-free waterproofing finish.
- Flexible and elastic with excellent crack-bridging properties.
- Excellent adhesion to properly prepared concrete, mortar and brickwork.
- Water-based and environmentally friendly.
- Fully bonded to the substrate, helping to prevent water tracking beneath the membrane.
- Can be applied to damp substrates on walls and floors, subject to proper surface preparation.
- Easy application by brush, roller, squeegee or trowel.
- Fast drying and economical.
- Available in various colours.

RECOMMENDED USE

- RC flat and pitched roof slabs and skirtings
- RC gutters and canopies
- Service yards, terraces and balconies
- External decks and landscaped areas
- New or existing masonry and concrete surfaces

TECHNICAL & PHYSICAL DATA

Properties	Typical Value
EC Top - Type	Single component
EC Top - Colour	Grey, white and other colours (subject to MOQ)
EC Base - Components	Component A: powder / grey Component B: liquid / white
Density	EC Top: 1.30 kg/L EC Base Component A: 1.50 kg/L
Pot life at 30°C	EC Top: 30 minutes EC Base Component A: 15 minutes
Resin	Acrylic polymer
Fire resistance	Non-flammable
Application temperature	10°C to 50°C
Elongation at break (ASTM D412)	≥ 220%
Tensile strength (ASTM D412)	≥ 1.6 MPa
Adhesion to substrate (ASTM D4541)	≥ 1.0 MPa
Crack Bridging (ASTM C836)	≥ 2mm

PACKAGING

Cemseal EC Top	20 kg/pail
Cemseal EC Base - Component A	20 kg/bag
Cemseal EC Base - Component B	15 kg/pail

SUBSTRATE REQUIREMENT AND PREPARATION

- The substrate shall be structurally sound, properly cured, smooth, dry, clean, even and free from cavities.
- RC roof slabs to be waterproofed should be cured for not less than 14 days.
- Remove laitance, fins, sharp projections, loose particles, grease, asphalt, oil, form-release agents and other contaminants that may affect adhesion.
- Repair voids, honeycombs, pittings, spalled areas and cracks. Major cracks may be repaired with Cemseal E300EPI epoxy resin or other manufacturer-approved repair material.
- Where falls are not formed in the slab, provide a base screed falling towards gutters and drainage outlets and allow the screed to cure for min. 7 days before waterproofing.
- Expansion, construction and control joints shall be properly sealed in accordance with the manufacturer's recommendation.

DETAILING & PRE-TREATMENT

- Apply Cemseal Latex as primer prior to forming cement-sand angle fillets at edges, skirtings, outlets and pipe penetrations.
- Treat uneven skirting/wall areas and local depressions using a cement and silica-sand mix modified with Cemseal Latex where required.
- Treat major cracks and interfaces between metal flashing and concrete with Cemseal EC reinforced with Cemseal F100 fiberglass mesh.
- All outlets, pipe penetrations and other weak points shall receive additional Cemseal EC treatment.

APPLICATION

- Prime the prepared substrate with Cemseal Latex at approximately 0.10 kg/m^2.
- Stir Cemseal EC thoroughly before application. Apply by squeegee, roller, bristle brush or block brush.
- Apply Cemseal EC Base at approximately 1.20 kg/m^2 and allow to dry for at least 4 hours.
- Apply Cemseal EC Top at approximately 1.00 kg/m^2 and allow to dry for at least 24 hours.
- Apply coats in a criss-cross direction and maintain a uniform continuous film without thin spots, pinholes or untreated potholes.
- Where additional coats are required to achieve the specified thickness, allow at least 2 hours between subsequent coats. Do not apply more than 2 kg/m^2 in a single layer.
- For large concrete flat roofs, Cemseal F100 fiberglass mesh may be embedded between the base and top layers to assist film-thickness control and increase tensile strength.
- Apply the final coat uniformly to achieve consistent film and colour.

TYPICAL CONSUMPTION

Layer	Product	Typical Consumption
Primer (Optional)	Cemseal Latex	0.10 kg/m^2
Base layer	Cemseal EC Base	1.20 kg/m^2
Top layer	Cemseal EC Top	1.00 kg/m^2

NOTE:

- Actual consumption may vary with substrate profile, porosity, detailing and required system build-up.
- Primer may be omitted where the prepared substrate is sound, clean and suitable for direct application of Cemseal EC. The requirement for primer shall be determined based on actual substrate condition and, where necessary, confirmed by a site adhesion trial or recommendation from Cemseal Technical Department.

CURING, PROTECTION & PONDING TEST

- Allow at least 48 hours curing of the finished coating, subject to touch-dry condition, before trafficking, laying screed or tiling.
- Water ponding testing may be carried out after 48 hours of membrane installation.
- The referenced method statement specifies a ponding-test duration of 24 to 48 hours, with R.C. roof water depth not exceeding 100 mm.
- Protect membrane upstands at skirtings, parapets and walls with suitable weather-resistant flashing where required.
- Inspect the completed membrane thoroughly for punctures, tears or defects before handover or subsequent works.

CLEANING

Clean tools, equipment and surrounding areas with clean water before the material sets. Hardened material must be removed mechanically.

STORAGE AND SHELF LIFE

Shelf life: 12 months when kept in a cool, dry place and stored in the original unopened packaging. Protect from excessive heat and adverse storage conditions.

HEALTH AND SAFETY

In case of contact with eyes, skin or body, wash immediately with clean fresh water. If vapour is inhaled or material is ingested, move the affected person to fresh air and do not induce vomiting. Obtain immediate medical attention.

IMPORTANT NOTES

- Technical information and application advice are based on Cemseal's present scientific and practical knowledge and are general in nature.
- Users are responsible for verifying product suitability for the intended use, substrate and site conditions.
- Field service or technical suggestions do not constitute supervisory responsibility; the owner, engineer and contractor remain responsible for procedures appropriate to the specific application.

Disclaimer:
The information and any recommendations relating to the application and end-use of all CEMSEAL products are provided in good faith based on CEMSEAL's knowledge and experience of the products. In applications, the differences in materials, and variances of substrates and actual site conditions can vary such that no warranty in respect of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be taken as inferred either from this information, or from any written recommendations, or from any other advice offered by CEMSEAL. The proprietary rights of third parties must be observed. All orders are accepted subject to our sale terms and conditions. All users should always refer to the most recent and up to date issue of the Technical Data Sheet for the product concerned, which is available on request. It is recommended that products should always be properly stored, handled and applied under tested and recommended conditions.

For More Information:

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