

Rocky OMWP

Description

ROCKY OMWP is a ready-mix, cementitious, and surface applied, waterproofing membrane consisting of Sulphate resistant cement, graded quartz and inorganic additives. ROCKY OMWP has been tested to a pressure of 1.5 bar. The initial and final bonding capability of ROCKY OMWP is excellent, making it suitable for application to both vertical and horizontal surfaces on concrete, block work, cement plaster...etc. It is durable, resistant to frost and heat after setting and remains permeable to water vapor.

Use

- Swimming pools
- Sewerage processing tanks
- Concrete block walls and any masonry surface
- Bathrooms
- Kitchens
- Basement walls
- Lift pits
- Water storage
- Drainage tanks
- Sewer aqueducts

Advantages

- Used for internal and external applications
- Used to waterproof against positive and negative pressure

- Approved for potable water contact
- Based on Sulphate resisting cement making it suitable for use in sewerage processing tanks
- Excellent bonding to masonry, brick, stone and concrete surface, where crystal growth treatments are not effective

Technical Properties

Appearance	Cementitious grey, white Powder
Mix Density at 25°C	1.75 kg/L
VOC	2.0 g/L
Water Permeability	NIL
Compressive Strength (ASTM C579)	25 N/mm ²
Bond Strength (ASTM D4541)	> 1.5 N/mm ²
Chloride Ion Diffusion (ASTM D1556-04)	Low
Water vapor transmission (24 hours) (ASTM E96 – 95)	1.09 g/h.m ²
Workability	Above 30 minutes
Service temperature	-5°C to +80°C

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Design Criteria

In the most waterproofing applications, ROCKY OMWP is applied in two coats by brush, trowel or spray.

Specific minimum application rates are as follows: For ground moisture or pressure-less surface water, application by brush, trowel or spray at an application rate 0.9kg/m² in two coats. (Total minimum layer thickness must be 1.0mm).

Water under pressure – up to four coats by brush, trowel or spray at an application rate of 1.3kg/m² per coat. (Total minimum layer thickness must be 3.0 mm).

Crack treatment

Shrinkages and non-moving structural cracks less than 0.3mm shall be filled with a pre-treatment strip of ROCKY ECWP directly bridging over the crack.

Static cracks that are greater than 0.3mm shall be repaired by chiseling the crack into a V-shape, to a depth and width of 25mm and priming it with PRIMER SR 200 followed by the application of Rocky-SCM cementitious repair material.

Voids and honeycombs shall be patched with ROCKY SUPERIOR FINISH 3-6, a single component polymer modified fairing coat, allowing the area to cure before applying the membrane.

Right angle bends

All right-angle bends must have a coving detail installed. In areas where parapet walls, columns, pipe penetrations are present, a 45° coving fillet shall be made at all corners using ROCKY REPAIR FIBER, a Fiber reinforced shrinkage-controlled mortar for concrete repair to the water saturated cured surface.

All other angles, joints, protrusions and stress joints should be pre-treated with a heavy application of Rocky ECWP.

Priming

Highly porous concrete or concrete containing micro-silica will require priming with ROCKY SR 200, from Rocky-SCM, a synthetic, high penetrating primer.

The primer shall be applied at a rate of 5-6 m²/L and left to achieve a tack-free condition before applying the topcoat. A second coat of primer may be required if the substrate is excessively porous.

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Mixing

Place 25 kg of ROCKY OMWP into a container containing 5.25 – 5.75 liters of clean water for brush or trowel application or use 6 liters of water for spray application. The ROCKY OMWP powder and water must be thoroughly mixed using a slow speed electric drill (300 rpm) mixer fitted with a suitable mixing paddle. Mix until a uniform lump free consistency is achieved. Keep the obtained mix for 5 minutes and then remix before application. Mix only as much material as can be used within 20 minutes and stir the mixture frequently. If the mixture starts to set, do NOT add more water; simply stir the product to restore workability.

Application

Apply the first coat from the base of the wall and work towards the top using a trowel, a hopper gun or a brush in a horizontal action. After 4 - 5 hours apply the second coat 'green on green' so that a chemical bond is achieved between the two coats. Do not apply first coat more than can be over coated with a second coat during the same day. If ROCKY OMWP is applied by spray using a Hopper Gun, ensure that the gun is held directly perpendicular to the surface at a distance of about 500 mm to ensure that the maximum impact energy is applied to the surface and to prevent any shadowing across small surface imperfections.

After application of the first coat by (spray, brush or trowel) wet surface to remove any entrapped air.

Curing and Protection

Surfaces treated with ROCKY OMWP must be kept damp and must be protected from the drying action of direct sunlight for a minimum period of 3 days after application. Protect all treated surfaces from wind and frost, by covering with plastic sheeting, damp hessian or equivalent.

Cleaning

All tools should be cleaned with water. Cured material can only be removed mechanically.

Recommendations

ROCKY OMWP is a cement product, so all the precautions for concrete practice must be followed. During windy or sunny days, spray water onto the surface to avoid the rapid evaporation of water. Do not apply at a temperature below to +5°C. Allow concrete supports to cure for 28 days. Cannot be used on substrate with possible moving cracks. The maximum applicable thickness is 1 mm per coat, with either trowel or brush.

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Surface Preparation

The surface of the concrete shall be sound, clean and uncontaminated.

This preparation shall be such as to leave a sound exposed concrete surface free from dust, loose particles and any deleterious matter. If the concrete surface is defective or has laitance, it must be cut back to a sound base.

Moss and lichen must be removed physically followed by treatment with fungicidal wash. After treatment, it must be washed down thoroughly with clean water and allow to dry.

Coverage

- ROCKY OMWP is supplied in bags of 25kg.
- Consumption: 1.75 kg/m² at 1mm thickness.

Shelf Life & Storage

Store in cool, dry conditions away from direct sun light. Shelf life is 12 months from the manufacturing date.

Health & Safety

ROCKY OMWP is cement-based product. During application, wear appropriate protective clothing, goggles, gloves and respiratory equipment if necessary. In case of contact with skin, rinse with water and again wash thoroughly with soap and water. In case of contact with eyes, rinse with plenty of water and seek medical advice accordingly.

If ingested, obtain medical attention immediately.

Important Note

The information in this Technical Data Sheet is based on Rocky-SCM Canada's experience. Rocky-SCM does not accept any liability arising from the use of its products as it has no direct or continuous control over where or how its products are applied. All Rocky-SCM Data Sheets are updates on regular basis. It is the user's responsibility to obtain the latest version.