UniProof CWM: Cementitious Waterproofing Material

DESCRIPTION

UniProof CWM is a cement based waterproofing material that forms a brushable slurry when mixed with specified quantity of water, for coating on to prepared concrete and masonry surfaces.
The coating cures to form a water impermeable membrane with excellent adhesion to the substrate.
For improved adhesion and performance, UniProof CWM can be mixed with a solution of acrylic based polymer such as UniLac 4 (formerly Thoro Acryl 60). Consult a Union Compound representative for advice.

RECOMMENDED USES

MasterSeal 581 is designed to be used as an effective waterproofing membrane on a variety of substrates. Applications include:
• waterproof coatings to the internal faces of water tanks, sumps, reservoirs, planter boxes etc., before tiling or other surface finishing;
• treating terraces, balconies, kitchen & toilet floors as a sandwich treatment, to prevent water ingress.

FEATURES AND BENEFITS

Resistant to weathering	Suitable for use on both exterior and interior surfaces.
Permeable to water vapours	Allows surface to breathe, preventing buildup of moisture below the membrane.
Brushable consistency	Easy to apply by brush or trowel.
Can be polymer modified	Improved bond. strength on a variety of substrates and improve mechanical properties.
Nontoxic	Can be applied on surfaces in contact with drinking water.
Prevents water ingress	suitable for both positive and negative hydrostatic pressure

PROPERTIES

Tensile strength (ASTM C190-77) @ 28 days	~3 N/mm²
Bond to concrete (tensile bond)	~2.9 N/mm²
Shore A Hardness, 7 days, (Fed. Spec.)	35
Coefficient of thermal expansion (ASTM C531)	5x10-7m/mm/°C
Permeability (ASTM E96)	12 Perms
Fungus resistance, 21 days(Fed, Spec. TT-P-29B)	No growth
Accelerated weathering - 5000 hr. (ASTM G26-77)	No failure
Supply form	Powder
Colour	Grey
Density of mixed material	1.9kg/L
Pot Life @ 20°C @ 30°C	1 hour (approx.) ½ hour (approx.)
Application temperature >5°C	

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APPLICATION

Surface preparation:
Correct substrate preparation is critical for optimum performance.
Surfaces should be structurally sound, clean, and free from loose particles, oil, grease, or any other contaminant.
Cement laitance, loose particles, mould release agent, curing, and other contaminants must be removed by wet grit blasting, high pressure water jetting (approx. 150 bars) or such other effective methods. Water soaked substrates should be allowed to dry before application.
Fill surface irregularities such as blowholes honeycombs etc., with a repair mortar such as UniCrete 7 to achieve a smooth and level surface.
Dampen the prepared substrate with clean water before applying UniProof CWM.

Mixing:
Mechanical mixing is necessary. A slow speed (300 rpm), heavy-duty electric drill with a helical paddle is recommended. Place approx. 75% of water in a clean pail. Keeping the mixer running, add UniProof CWM slowly. Mix for at least 3 minutes to get a lump-free homogenous mix.
While continuing to mix, add the remaining 25% of water or a part thereof until the required consistency is achieved.
Typical water demand: 4.8 to 5.6L/25 kg UniLac 4 can be used to polymer modify the UniProof CWM to improve it bond strength and mechanical properties, dilute MasterSeal 600 in the ratio of 1 part polymer and 3 parts water and use this as the mixing water.

Placing:
It is extremely important that the area being treated is shaded from direct sun and wind to prevent rapid drying of the coating. Do not apply in rain or when rain is expected within 2 - 3 hours.
Apply UniProof CWM evenly with a stiff brush or by spray, onto the prepared surface, to give a continuous film. Apply in at least two coats, the second coat applied at right angles to the direction of the first and after an overnight's cure.
In case of large areas, UniProof CWM can be spray-applied using a worm-gear type of spray equipment. For spraying on vertical or overhead surfaces, use the correct nozzle and adjust the viscosity of the mixed material to prevent sagging.
It is necessary to carry out a few trials to adjust the viscosity for spraying.

CURING

Slow drying of UniProof CWM membrane ensures homogenous curing and high waterproofing characteristics.
UniProof CWM must be protected against rapid drying due to high temperatures or wind. Curing by wet burlap, plastic sheet or Union Compound Construction Chemicals approved curing compound is recommended.

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ESTIMATING DATA

The minimum recommended coverage is 2.5 kg of mixed material per m^2 to obtain approximately 1mm thick dry film build in 2 coats. Actual coverage depends upon the method of application, the texture and porosity of the surface.

PACKAGING

UniProof CWM is available in 25 kg bags.

SHELF LIFE

UniProof CWM can be stored in tightly sealed original packaging for 12 months from date of manufacture, if kept dry and at constant temperature.

PRECAUTIONS

For detailed Health, Safety and Environmental Recommendations, please consult and follow all instructions on the product Material Safety Data Sheet.

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact union compound Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to union compound quality control. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of products. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY union compound, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.