



Ultra PU Membrane

Water Based UV Resistant Elastomeric PU Liquid Membrane

Description

Ultra PU Membrane is high solids, water based, cold applied, single component elastomeric in-situ liquid membrane for waterproofing usually produced in White / Terracotta / Gray colour. It may also be supplied in Black colour against specific orders.

Ultra PU Membrane is UV resistant. However, for better UV resistance, we recommend use of White colour, having SRI Index >109, thus facilitating considerable saving in energy.

Ultra PU Membrane forms a seamless monolithic membrane and can be applied on moist surface. It conforms to ASTM C 836, ASTM C 898 and ASTM D 6083-97a. Use Horizontal / Vertical grades for horizontal / vertical application respectively.

Characteristics - Physical

Colour	White / Grey / Terracotta / Black	Touch Drying time #, minutes	- 30
		Full Cure time #, days	7
		UV Stability	Excellent
Solid content, %	> 80	VOC Content, gm / kg	Nil
Service temp, range, °C	- 20 to 100	pH	Alkaline
Theoretical Coverage*, DFT, kg / m ² • For 1.0 mm • For 1.2 mm	1.85 2.20	Solar Reflective Index (ASTM C 1549, C 1371, E 1890) • Terracotta / Grey / Black • White	N/A 109
		Specific Gravity @ 30°C	1.5 ± 0.03
		Elastic Recovery @ 150%	- 75
Application Temperature, °C	> 5	Elongation, %	
Viscosity @ 30°C, cps	± 1500		

* Depending upon surface condition # Depends up on weather condition.

Characteristics Technical

Elongation, %	ASTM D 2370	± 50
Tensile Strength, MPa	ASTM D 2370	1.40 ± 0.2 2.0 ± 0.2 (w/ fabric)
Adhesion to primed concrete, Pull-off Strength, MPa	ASTM D 4541	1.50
Extension after heat aging, mm	ASTM C 836	6
Crack Bridging at low temperature	ASTM C 836	No cracking
Water Absorption, %	IS 13826 Part 3	< 5
Water Permeability	IS 2645	Negligible
Hardness, Shore A	ASTM D 2240	> 50

Application

- Roof / Terraces, including corrugated roof.
- Podium
- Refurbishment of APP / SBS / TarFelt roof
- Gutter waterproofing

Advantages

- White **Ultra PU Membrane** has excellent SRI of 109, thus facilitates energy saving and provides good cooling effect under the treated surface.
- White **Ultra PU Membrane** is recommended for all slope roofs and not trafficable roofs, which needs no protection.
- Can be applied on moist surface also.

Admixtures

Surface Treatments

Protective Coatings

Concrete Repairs

Industrial Flooring

Grouts & Anchors,

Adhesives,

Water Proofing

Sealants



Ultra PU Membrane

Water Based UV Resistant Elastomeric PU Liquid Membrane

- Excellent water vapor barrier.
- High Crack Bridging.
- Monolithic / seamless / breathable in-situ membrane.
- Excellent adhesion to concrete.
- Excellent elongation and very good low temperature flexibility.

Application Methodology

All substrates (new and old) must be structurally sound, dry and free of laitance and loose particles. Clean of oil, grease, paint stains and other adhesion impairing contaminants. Profile mechanically the surface by shot blasting, high-pressure water jetting or other suitable mechanical preparation method. After surface preparation the tensile strength of the substrate should exceed 1N/mm² (check with an approved pull-off tester). Temperature of the support should be minimum +5°C and maximum +35°C. The residual moisture content of the substrate must not exceed 4% (check with e.g. CM device). The temperature of the substrate must be at least 3 K above the current dew point temperature. Try to keep the temperature uniform during application and hardening.

Primer: Suitable primer for using

Ultra PU Membrane on concrete or cementitious mortar substrates is **Ultra PU Primer**. Refer to TDS for application guidelines.

Before the surface application, all detail areas and any singular points like wall-floor connections, chimneys, joints, substrate cracks, penetrations, corners, etc, must be treated. For this apply one layer **Ultra PU Membrane**, then place a correct cut stripe of geotextile mat (110 g/m²) into the wet material. Press in to fully soak without leaving air pockets. Then fully saturate the geotextile mat by applying additional **Ultra PU Membrane**. All lap joints in the mat reinforcement should be minimum 50mm.

Homogenize **Ultra PU Membrane** with mechanical stirring before use. Pour the **Ultra PU Membrane** onto the primed substrate and spread with a roller or brush at a minimum consumption of 0.75-1.0kg / m² per layer (2 coats required).

Homogenize **Ultra PU Membrane** with mechanical stirring before use. Add the correct quantity of **Ultra PU Membrane Catalyst** (3% by weight for consumptions >800 g/m² of **Ultra PU Membrane**). Mix by low-speed mechanical stirrer, according to the stipulated mixing ratio, for about 3-5 min. The mixing of the components has to be affected very thoroughly, especially on the walls and bottom of the pail until the mixture becomes fully homogeneous.

After the mixing, pour the mixture onto the primed surface to be waterproofed, and spread with a roller or brush at a minimum consumption of 1.2kg/m² per layer. Lay geotextile mat (110 g/m²) reinforcement into the wet membrane, press in and roll flat with a roller to fully saturate the geotextile mat. All lap joints in the geotextile mat reinforcement should be minimum 50mm. Immediately after pour again the mixture on the geotextile mat and spread with a roller or brush at a minimum consumption of 1.8kg/m² per layer, until full saturation. **Ultra PU Membrane** can also be sprayed by airless spray equipment.

Coverage/ Yield

Normally approx. 1.5-2.0kg/m² are required in two coats, depending on chosen application method. These consumptions are theoretical and can vary according to the absorption and roughness of the support. It is essential to carry out representative trials on site to evaluate the exact consumption. Higher consumptions up to 3.0kg/m² with two or three coats due to national regulations are possible.

For best performance:

The product must not be applied when the temperature is below +10°C or above 30°C. Do not mix solvents, sand or other products that could affect the products properties must not be added.

For full application details please refer to the Method Statement.

Cleaning

While still wet with a suitable thinner (Xylene / MEK / Acetone). Once cured it can only be removed mechanically.

Packing Available in 15 kg pack.

Storage Store in a cool dry place, under shed, away from heat

Shelf Life 12 months in original unopened sealed condition.



ULTRA CHEMICALS, LLC. USA

325 Conway, Hill Road, MO, 63901, USA. Ph: 573-429-1105
info@ultra-chemicals.com, www.ultra-chemicals.com - www.ultragroup.pk

