

## COLOR MEMBRANE

### ACRYLIC LIQUID WATER PROOFING MEMBRANE

**COLOR MEMBRANE** is a single component highly elastic, solvent free, liquid membrane for natural rubber like ACRYLIC water proofing system. It is a ready-to-use product and applied directly whereby forming flexible coating. The coating is paintable and is suitable for both indoor and outdoor sealing.



### Features/Advantages

- Dries to form a seamless, highly elastic durable waterproof membrane
- Bridges surface stresses and hairline cracks
- Suitable for horizontal surfaces- above and below ground
- Adheres well to dry, wet, absorbent and non-absorbent surfaces
- Resistant to all- dilute acids or alkali, fumes or fluid gases commonly encountered in the construction industry
- Resistant to cold and heat weathering and ageing
- In normal roof layer construction, it is not affected by spark or radiant heat
- Not damaged by roots and not attacked by rodents

### Typical Applications

- Acts as an adhesive-for bonding, insulation board, expanded polystyrene and cork tiles
- External cellar sealing
- Silos, store rooms or stable Retaining walls
- Roof superstructures and extension, Terraces & balconies
- Foundations, Under ground structures
- Damp & wet rooms
- Flat or sloping roofs
- Bridges
- Metal / Corrugated sheets with special primer 'PR 71 primer'.

## Technical Characteristic

| Test Parameters   | Standards             | Results   |
|---|-----------------------|---|
| Solid Content   | IS 101/1964           | 80 %  |
| Density   | IS 101/1964           | 1.6 gm/cc   |
| Hardness (Shore A)  | ASTM D 2240           | 40  |
| Elongation  | ASTM D 412            | >500%   |
| Adhesion Strength after 14 days of curing on concrete surface | ASTM D 4541           | 2.0 – 3.0 MPa   |
| Water Absorption (% by Mass)                                  | ASTM D570             | Passes  |
| Resistance to Alkali (10% NaOH after 24hrs)                   | IS101- Part7:Sec2     | Passes  |
| Solar Reflective Index  | ASTM E1980            | Passes  |
| Tensile Strength  | ASTM D 412            | Min. 1.5 MPa  |
| Resistance to Water pressure                                  | ASTM D-751            | Passes  |
| Water Vapour Transmission                                     | ASTM E-96             | Passes  |
| Crack Bridge properties                                       | ASTM C-836            | Up to 2 mm  |
| Crack resistance  | IS101- Part5:Sec2     | Passes  |
| Recovery after 200% elongation                                | ASTM D-412            | 90%   |
| Algae & Fungal Growth   | ASTM D - 5590/5589-97 | Passes  |
| Rapid chloride penetration                                    | ASTM C -1202-03       | Very low  |
| Water permeability  | IS 2645               | Passes  |
| Accelerated weathering, 500 hours                             | ASTM D 4587           | No cracking , no blistering & No fading   |
| DFT   |                       | 1 mm  |
| Coverage  |                       | 1.5 to 1.6 kg/m <sup>2</sup> . It may be vary as per the porosity of substrate (Site condition) |

## Direction for Use



### Surface Preparation

All surfaces to be waterproofed should be sound, clean and dry. Concrete surfaces should have a light steel-trowel followed by a fine hair broom or equivalent finish which is dry and free of dust, oil and other contaminants. A gradient of minimum 1 in 100 or 1 in 80 is a prerequisite for application of any liquid membrane /other membrane. All undulation and loose materials must be removed. Moss and lantance must be removed physically followed by treatment with fungicidal wash to kill any spores and inhibit further growth. After treatment wash down thoroughly with clean water and allow drying. All metal surfaces should be made clean of paint, oils, rust and other contaminants.

A coving of 75 x 75 mm with polymer mortar may be provided at all junctions with a change of direction. Drain mouths level shall be lower than Deck level and finished properly.

## Recommended Application



### Priming

Priming is always preferred on concrete and porous substrates. However, highly absorbent surfaces such as porous concrete sand/cement and cement boards will require complete sealing to prevent absorption of Color Membrane. Use Primer PR -71 as a primer coat. Coverage of PR-71 is 70-80 sq. ft. /lit/ coat on the clean and dry substrate with a standard paintbrush. Coverage may vary depend on the surface porosity or undulation of substrate.



### Cracks

All shrinkage and rigid structural cracks should be pre treated with a polymer modified mortar. Allow to cure overnight before general application.

## Coverage

Color Membrane shall be applied @ 1.5-1.6 kg/sqm in two coats for 1mm DFT. Depending on the roof condition and requirement Color Membrane may be applied in 2 or 3 coats. All corners, joints, drain mouth should have an extra layer of coating.

All Parapet areas, if any shall be coated similarly like deck.

**To improve the solar reflectance, two coats of Sunshield 100 @ 500 gm per sqm may be applied for non-Trafficable roof.**

## Application Procedure

1. The dry film thickness (DFT) of Color Membrane should be minimum 1.0 mm. Rough or textured surfaces will reduce the coverage rate and consequently more material must be allowed to achieve the minimum DFT.
2. Color Membrane is a membrane coating, not paint and as such protection is only achieved with a high film build. The membrane can be applied in 1.0 mm coat or two 0.5 mm coats maintaining min DFT of 1mm & above.
3. Two coats are recommended on uneven and jointed surfaces to minimize the possibility of thin patches, missed areas and pin hole. Also sloping or vertical surfaces will only accept 0.5 mm per coat. In the case of two-coat application, it is important to re-coat within 24 hours of the first coat becoming sufficiently cured to allow operator access. A reinforcement layer of non-woven glass mesh/ geotextile of 50gsm between two or more coats shall improve the mechanical properties of the system.
4. The minimum application life (after opening the pack) is up to 48 hours if stored in closed containers.
5. A short haired synthetic coating brush should be used.
6. In case ponding (water) test to check the efficacy of watertightness of the terrace/structure to be done, the membrane should be fully cured and preferably be done after 7 days of application
7. For Trafficable & Useable Roof- Permanent protection over **Color Membrane** must be laid after full curing of coating or after ponding test done. PCC must be admixed with integral waterproofing admixture of 100/200 ml per bag of cement. The average thickness of PCC must be 65 mm and thickness at the lowest level (drain mouth) should be 50 mm. A separation layer cum protective layer between PCC and liquid membrane shall be placed of 200 gsm of non-woven geotextile.
8. A groove of 10 mm x 6 mm is to be provided at every 3 meters on both directions and filled with Tech shield PU1 after proper cleaning of the groove.
9. For Non-Trafficable Roof - All exposed areas of Techothane PU should be coated with Walnut-5 white to ensure maximum resistance to ultraviolet radiation.
10. Do not store material in opened container for a long time.

## Cleaning Of Tools & Equipment's

Clean tools immediately after use with water

## Packing



4 Kg.



20 Kg.

## Storage and Shelf Life

In originally sealed packages, the material can be stored for 12 months.

## Precautions

Wear protective gloves and goggles when processing the material. When carrying out injection work, make sure to protect the surrounding work area from injection resin that may be discharged from the wall, packers, drill holes, etc. Do not stand directly behind the packers during injection.