



TECHNONICOL ULTRASHIELD

Single component, acrylic based flexible, waterproofing, microfiber reinforced, heat reflecting and temperature reducing coating system.

PRODUCT DESCRIPTION

ULTRASHIELD is a flexible, liquid applied, single component, ultraviolet rays, and weather resistant, acrylic waterproofing membrane for all types of exposed roof slabs (new and old), terraces (sloped and flat), etc. ULTRASHIELD contains cross linking polymers, special glass microfibers, pigments, and advanced antifungal additive that provides long lasting tough water proofing membrane.

AREA OF APPLICATION:

- Roof slabs (flat and sloped).
- RCC/ asbestos/ lime terraced roofs, etc. after suitable surface preparation and repairs.
- Suitable for repairing existing bituminous membrane.
- Can be used as exterior coating for PVC water tanks exposed to direct sunlight on roofs. to keep the inside water temperature relatively cooler.
- Extended walls, balconies, and sunshades.

ADVANTAGES:

- Cross linking polymer gives excellent weather resistance and enhances service life.
- High solar reflectance index (SRI) indicates high degree of cooling effect.
- Crack-bridging.
- High resistance to chloride penetration, hence highly suitable for saline environment.
- Highly flexible & algae and fungi resistant.
- Water vapor permeable.
- Simple and fast application (even at detailing).
- Excellent adhesion to concrete, brickwork, corrugated asbestos, asbestos cement sheet and metal decks.
- Ultraviolet rays and weather resistant.
- Water based hence eco-friendly.

SUBSTRATE PREPARATION:

- The application temperature should be between 10°C to 45°C. Application procedures may vary slightly depending upon site conditions.
- The cementitious substrate should be sound and of sufficient strength. All substrates should be clean and dry, homogeneous, free from oil and grease, dust and loose or friable particles, free from paint, cement laitance, old coatings, and any other contaminants.
- All new cement sand renderings, concrete surfaces should be allowed to age for minimum of 28 days before coating.
- In case of old roof, all dust, loose and friable materials and glaze or varnish of tiles must be completely removed by mechanical means. Existing coatings/ membranes must be inspected, cleaned, and mechanically ground to achieve a sound, gripping substrate. In case of bad adhesion to the substrate, existing coatings must be removed.
- All uneven surfaces should be properly treated by suitable material to get a plain surface.
- In case of application on an existing bituminous membrane following procedure must be followed: After ensuring that the existing membrane has been cleaned properly, apply the solvent based, or water based on the surface on which the system is to be applied. Sprinkle a layer of sand on the primed surface immediately and allow it to dry for at least 12 hours. The surface is now ready to take the ULTRASHIELD System.

APPLICATION METHOD:

- Prime the prepared substrate with ULTRASHIELD Primer by brush or roller.
- TECHNONICOL ULTRASHIELD is supplied in a single component pack and is in ready to use form. Stir thoroughly using a conventional paint stirrer prior to application. Within 2-4 hours of priming, apply 1st coat of TECHNONICOL ULTRASHIELD by brush or roller. Do not spoil the dry surface while walking on it for application.
- While the first coat is wet, embed the fiber mesh over the first coat. Apply the 2nd coat of TECHNONICOL ULTRASHIELD perpendicular to first coat, following the same above procedure at suitable time interval of 6-8 hours between the coats.
- Finally apply a thin layer of ULTRASHIELD Primer. A suitable time interval is 6-8 hours after the second coat dries off. The above-mentioned times may vary depending on temperature, humidity, and ventilation at site.

Note: Clean the tools immediately before drying the product.

Main characteristics:

Properties	Performance
Chemical Base	Acrylic polymer dispersion
Density	ULTRASHIELD: ~ 1.35 kg/l at 27° C
Layer Thickness	With glass fibre-1 ~1.2 mm
Solid Content (ASTM D 2969)	~ 55 % (by weight)
Tensile Strength (ASTM D412)	1.5 Mpa
Elongation at Break (%) (ASTM D412)	>200%
Adhesion Strength on cement after 14 days curing (EN 1542)	≥ 1.5 N/mm ²
Crack bridging properties (ASTM C 836)	2.5mm
Water Absorption (% by Mass) (ASTMD 570)	< 10%
Water Vapor Transmission (ASTM E96)	23 g/m ² / 24h
Shore A Hardness (ASTM D 2240)	45 after 1 month
Solar reflectance index (ASTM E1980)	106 (low wind to high wind condition) 49.8 to 41°C (low wind to high wind condition)
Algae & Fungal Growth (ASTM D5590)	No growth
Water permeability (IS 2645)	Passes
Over coating time	ULTRASHIELD Primer: 2-4 hours at +27°C (depending on humidity and ventilation) ULTRASHIELD Coating: 6 – 8 hours at +27°C (depending on humidity and ventilation)

CONSUMPTION:

ULTRASHIELD PRIMER: 0.25-0.38 kg/m² consumption depending on the substrate. (Prepared by dilute TECHNOMICOL ULTRASHIELD with water upto 30%)

TECHNICOL ULTRASHIELD: 1.8-2.0 kg /m² /mm (2 coats recommended). This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, reinforcement, temperature and application method can alter consumption.

STORAGE:

Best before 12 months if stored properly in undamaged and unopened original sealed packaging in dry and cool conditions.

PACKAGING INFORMATION:

Bucket of 5, 10, 20 Kg, etc

HEALTH & SAFETY

- As with all construction chemicals products caution should always be exercised.
- Protective clothing such as gloves and goggles shall be worn.
- Treat any splashes to the skin or eyes immediately with fresh water.
- Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.