

Protekta Micro Emulsion

A silane-siloxane based emulsion for water repellency

DESCRIPTION

Protekta Micro Emulsion is a unique silane-siloxane-based emulsion for surface water repellency. Provides excellent anti-corrosion and anti-carbonation protection of reinforced concrete. This thermodynamically stable emulsion is to be used for reducing surface water absorption of building materials. It renders the surface water repellent, becoming permanently bonded to the surface material. The emulsion particle is nano-sized enabling the product to penetrate even dense surfaces.

USES

Can be used on exterior surfaces of natural stones, sand stones, granite, marble, bricks, designer tiles, clay tiles, sand lime mortar, concrete and as a primer for mineral paints. An excellent product for protection, maintenance, durability and appearance of building facades.

ADVANTAGES

- Easy to use, water based product supplied in concentrated or diluted form
- Good anti-carbonation & anti-corrosion protection to reinforcement concrete
- Non hazardous, non corrosive and stable at high pH
- It reduces surface water absorption by about 95%
- Micro-size particles can penetrate into dense surfaces
- Does not leave any oily or other residue on the treated surface
- This water repellency zone also reduces efflorescence and staining

- It passes IS 12027-1987 (Reaffirmed 2003)

Protekta Micro Emulsion is available in both concentrated and dilute form. Concentrate should be diluted with neutral pH deionized or demineralized water, stability of diluted product may vary and should be tested at site. Product diluted with drinking water should be used within 24 hrs. Dilution of product will vary based on absorbency of the surface to be treated. Product can be diluted 1:6 to 1:10 but should be patch tested: on the surface for effective water repellency.

APPLICATION

1. Application can be done by low-pressure spray pump or brush. Two applications wet to wet, should be made. The surfaces should be clean and free from dust, loose particles, oil and grease.
2. A patch test should be performed on the surface, prior to treatment.
3. Depending on the job, Protekta Micro Emulsion can easily be applied by brush, roller or spraying.
4. The product is preferably applied by saturation flooding using a hand pressure spray or airless spray pump, so as to avoid direct contact of the brush or the roller with the surface.
5. For vertical surfaces, the product should be applied as a liquid thin film stream, which runs down the surface approximately 30-40 cm.
6. A second application should follow immediately after the first coat as it is absorbed by the surface temperature of about 20-25°C
7. This is termed as “wet-to-wet” application. The object is to saturate the surface to allow uniform surface penetration.

AFTER APPLICATION

The initial surface water repellency will develop after the surface is dry. Full curing may take 24 hours or up to 7 days. Heavy traffic should be avoided for at least 24 hours. Equipment used can be cleaned in water.

TECHNICAL DATA

Appearance	: Liquid
Color	: Milky White
Specific Gravity	: 0.955 Kg/ L
pH value	: 7.5 - 8
Solubility	: Miscible in water
Flash Point	: 100°C in diluted form : 25°C in concentrated form
Viscosity (@25°C)	: 1 - 10 mPa.s

DOSAGE

25-30 sq.ft /L

PACKING

5L, 10L, 20L, 50L, 200L (Other sizes available upon request depending on concentrate)

SHELF LIFE

Product should be stored in a closed, uncontaminated container and be used before the use-by-date printed on the container. However, if the product is past its use-by-date it is not necessarily unusable. A quality control test should be performed on the properties relevant to the application or the manufacturer contacted for further advice. Product older than one year should be discarded.

STORAGE

Once opened, remaining material should be sealed and stored in a cool, dry place. Care should be taken to always keep product away from direct sunlight or extreme heat.

HEALTH & SAFETY

Non-hazardous, non-toxic, non-flammable.

Impregnating Agent Micro Emulsion	Water Absorption in 8.5 hours (increase in percent weight)	Water Absorption in 72 hours (increase in percent weight)
Brick (clay) Water Repellent	0.4	0.8
Control (Untreated)	10.10	18.90

Tested as per IS 12027-1987, it reduces the relative absorption of water by greater than 95%.

Tested as per ASTM C1210-10, the chloride permeability is found to be very low. It delays time-to-corrosion by up to four times when compared to control untreated concrete. (Tested at Central Electro Chemical Research Institute (CECRI), Karaikudi, TN).

IMPORTANT NOTE : Protekta products are non-hazardous when properly handled, applied and stored. When handling suitable protective clothing should be worn. The materials should not be ingested, inhaled or make skin contact. MSDS are available.

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