CHEMCORE™
by FAIR MATE®

CHEMCORE NANOSIL

Nanosilicone based water repellent

BENEFITS

- Eco-friendly
- Provides excellent water repellency to the substrate
- Water-based and contains no harmful solvents
- Forms a clear film upon drying, so it does not alter the substrate's appearance
- Reduces the growth of mold, algae, bacteria, etc.
- Simple application with no need for specially skilled applicators
- Faster reaction time
- Breathable
- Reduces material and labor costs
- Protects the substrate from deterioration due to weathering
- Excellent waterproofing agent useful for new and existing concrete masonry structures
- Good UV and thermal stability
- No need for waterproofing membranes
- Penetrates deep into surfaces
- Long-lasting protection, requiring repetition of work only after 10 years

DESCRIPTION

CHEMCORE NANOSIL is a clear, water-soluble, safe, penetrating sealer based on Organo-Silane Nanotechnology. It penetrates deeply into the substrate and becomes an integral part of the structure. **CHEMCORE NANOSIL** protects against mildew, fungus, leaching, staining, premature aging, scaling, spalling, and corrosion of reinforced steel. **CHEMCORE NANOSIL** is breathable, UV resistant, and can also seal nanopores and nano-cracks. It can be easily applied by brush, spray, or roller.

USES

CHEMCORE NANOSIL is recommended for use on masonry blocks, concrete, unsealed stucco, sand and dirt, plaster, grout, aggregates, pavers, and cement tile.

PHYSICAL PROPERTIES

Appearance	Slightly yellowish liquid
Specific Gravity (kg/ltr)	~0.95

TECHNICAL SPECIFICATIONS

- **ASTM D 6489**: Concrete water penetration - Less than 15% after 24 & 48 hours
- **ASTM G 154**: Accelerated weathering - Less than 5% loss after 2000 hours
- **ASTM 1653:03**: Masonry vapor transmission - Passes (breathable)
- **ASTM E 514**: Brick/masonry standard test for water penetration - Passes with 85% reduction
- **ASTM E 303:93**: Wet concrete slip resistance - Complies

  IS 3067-1988: Masonry damp-proofing of buildings – Complies

APPLICATION

1.Solution Preparation: **CHEMCORE NANOSIL** must be diluted with potable water (TDS below 1000 ppm) to obtain a clear transparent solution. Test the water quality before making the **CHEMCORE NANOSIL** solution. Take 200 gm of water in a clean beaker, add 5 gm of **CHEMCORE NANOSIL (1 : 40 :: Chemcore Nanosil : Water)** to it under manual stirring until **CHEMCORE NANOSIL** dissolves. A clear solution indicates good water quality. If the sample solution turns turbid or whitish, the water quality is not acceptable. In rare cases, when turbidity is seen even in potable water, do not use **CHEMCORE NANOSIL** and contact **CHEMCORE** for further inquiries.

2.Application: For effective and long-term waterproofing, apply **CHEMCORE NANOSIL** solution in the recommended dilution ratio on the area to be treated until saturation, ensuring 3 to 4 mm penetration into the substrate .**CHEMCORE NANOSIL** is best applied at ambient temperatures of 10°C to 35°C. It is recommended to apply in the morning or evening to avoid peak heat of the sun.

Horizontal Surfaces: Apply diluted **CHEMCORE NANOSIL** solution with flood or roller application. Multiple roller passes will ensure full saturation up to 3-4 mm.

Vertical Surfaces: For best performance, spray the diluted **CHEMCORE NANOSIL** solution from bottom to top. Full saturation for the vertical surface is achieved with repetitive light sprays (typically 2-3 times after every 30-45 seconds), until the solution starts dripping.

3. Drying: **CHEMCORE NANOSIL** treated surfaces become waterproof only after the water dries completely. Check waterproofing by splashing water on the treated

CHEMCORE NANOSIL

surface. If water droplets remain for at least 10 to 15 minutes, waterproofing and surface curing are confirmed.

NOTE: During rainy seasons and wet conditions, depending on surface wetness and residual water absorption capacity, CHEMCORE NANOSIL should be diluted with water in the ratio of 1:10 to 1:20. For quick and complete drying, use a halogen lamp or hot blower on the surface. Confirm waterproofing on horizontal or vertical surfaces with the RILEM test. The dilution ratio and exposure time with the halogen lamp must be decided by the applicator depending on the site conditions.

LIMITATIONS

- Do not apply to frozen or frosted surfaces. The unused material should be sealed tightly and stored properly.
- Do not apply over previously sealed surfaces.
- Do not apply during very windy conditions.
- Do not apply when rain is expected within 2 hours.
- Do not allow traffic on the sealed surface until completely dry.
- Do not stop application halfway.

PACKING & COVERAGE

CHEMCORE NANOSIL is supplied in 1 kg and 5 kg packs. The ideal ratio of dilution is 1 part **CHEMCORE NANOSIL** and 40 parts Water.

Sr. No	Application Areas	CHEMCORE NANOSIL (Kg)	WATER (Kg)	FAIRCRETE FBR (Kg)	TOTAL (Kg)	Coverage (m^2/Kg of Diluted Solution)
1	All exposed surfaces like clay roof tiles, tile joints, IPS layers,walkways, paved surfaces	1	40	0	41	25-40 m^2
2	Basement, sunken areas, mother slabs, pre-stone cladding, priming before IPS/plastering/tiles	1	40	1	42	25-40 m^2
3	Stones, plastered & concrete structures	1	40	0	41	25-40 m^2
4	Exposed bricks/fair-faced concrete	1	40	0	41	25-40 m^2
5	Priming for painting	1	40	2	43	80-100 m^2
6	Treatment of honeycomb, cracks, cold joints	1	40	1	42	Up to saturation

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QUALITY ASSURANCE

Fairmate manufactures entire range of construction chemicals under compliance of ISO 9001, ISO 14001 & ISO 45001 (Occupational Health and Safety) certified by ISOQAR / UK.

TECHNICAL SERVICES

While new advances and changes will take place but one thing will never change is quality and meeting special needs of our customers. Our quality control laboratory and technical experts are available to provide additional information and technical assistance. We are eager to work with you in development of new product and resolve your problem.

CHEMCORE by FAIR MATE

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