

TECHNICAL DATA SHEET

Nano Waterproof Agent (Potassium Methyl Silicate)

Product Description

Inorganic silicone-based nano penetrating waterproof agent. Penetrates deep into porous substrates (concrete, brick, stone, mortar) and reacts with CO₂ and moisture to form a hydrophobic barrier within the capillary structure. Does not form a surface film - maintains the original appearance and breathability of the substrate while providing long-lasting water repellency.

Technical Properties

Property	Value
Appearance	Colorless to light yellow transparent liquid
Active Content	42 - 52% (Potassium Methyl Silicate)
Density	1.20 - 1.35 g/cm ³
pH Value	11.5 - 13.0
Penetration Depth	>= 3mm (on C30 concrete)
Water Absorption Reduction	>= 90%
Contact Angle	>= 105 deg (after curing)
Water Vapor Permeability	Maintains >= 95% breathability
UV Resistance	Excellent (inorganic compound)
Service Temperature	-40 deg C to +150 deg C
Drying Time	Approx. 8 hours (23 deg C)
Full Reaction Time	7 days
Coverage Rate	0.2 - 0.5 L/m ² (depending on porosity)
Dilution Ratio	1:5 to 1:10 with water

Recommended Applications

- Exterior concrete and masonry walls exposed to rain and sandstorms

- Natural

Surface Preparation

Surface must be dry and free of dust, oil, paint, and existing coatings. Power wash or brush clean if necessary and allow to dry completely (minimum 24 hours after washing). Do not apply on sealed or non-porous surfaces. Surface temperature should be above 5 deg C.

Application Method

Dilute with clean water at ratio 1:5 to 1:10 depending on substrate porosity (more porous = less dilution). Apply by low-pressure spray, brush, or roller. Apply generously ensuring the surface remains wet for 3-5 minutes. Apply second coat while first coat is still damp (wet-on-wet method). For highly porous substrates, apply a third coat. Do not allow product to dry as a white film on surface - if white

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residue appears, rinse with water immediately. Full water repellency develops after 7 days of reaction.

Storage & Shelf Life

Store in original sealed containers at 5-35 deg C. Protect from frost (product crystallizes below 0 deg C but recovers after thawing). Shelf life: 24 months from date of manufacture in unopened containers. Highly alkaline - store in HDPE or stainless steel containers only.

Health & Safety

Highly alkaline (pH 12-13). Causes skin and eye irritation. Wear chemical-resistant gloves, safety glasses, and protective clothing. In case of skin contact, wash immediately with water. In case of eye contact, rinse for 15 minutes and seek medical attention. Do not ingest. Refer to SDS for complete safety information.

Standards & Compliance

JC/T 1018-2006 (Water Repellent for Building)

GB/T 34611-2017 (Silicone Water Repellent)

Compliant with REACH and RoHS requirements

Disclaimer: The information provided in this Technical Data Sheet is based on our current knowledge and experience. It is the responsibility of the user to ensure suitability for their specific application. Fansen recommends on-site testing before large-scale use. Values shown are typical results from laboratory testing and should not be taken as specifications.