

Manta LO310

Alkyl Functional Silane (Isooctyl-Based)

Description

Manta LO310 is an undiluted isooctyltrimethoxysilane. As a monomeric, medium-chain alkylfunctional silane, it is specifically designed as a highly effective, deep-penetrating water repellent for concrete and masonry substrates.

Due to its methoxy-functional groups, Manta LO310 exhibits rapid hydrolysis and fast curing upon contact with moisture. Furthermore, its specific eight-carbon alkyl structure provides exceptional alkali resistance and extremely low volatility. The small molecular size allows for superior penetration depth into capillary pores.

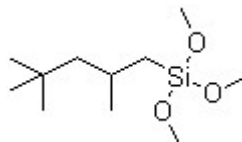
Manta LO310 is highly recommended for premium concrete silane impregnation, deep architectural water repellency, and the treatment of rising damp (horizontal damp-proofing) in masonry walls. Once applied, it chemically bonds with the substrate to form a durable, three-dimensional hydrophobic network, protecting the structure from water ingress and chloride-induced corrosion while fully retaining its breathability (water vapor permeability).

Equivalent grade: Wacker® IO-TRIMETHOXY / SILRES® BS 1316 (Active Base).

Typical Physical Properties

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| Manta code: | LO310 |
| Chemical Name: | isooctyltrimethoxysilane |
| Synonyms | trimethoxy(2,4,4-trimethylpentyl)-Silane |
| CAS No. : | 34396-03-7 |
| EINECS No. : | 251-995-5 |
| Appearance: | Colorless transparent liquid |
| Purity (by GC, %) | 98.0 min |
| Flash point: | 72°C |
| Specific Gravity (ρ20°C, g/cm ³) | 0.88–0.90 |
| Refractive Index (n _D 25°C): | 1.417–1.419 |

Chemical Structure:



Applications

1. Treatment of Rising Damp (DPC Injection) – Core Application

Highly effective for chemical damp-proofing in old buildings and damp masonry. Deeply penetrates and blocks capillary rising moisture from groundwater. Acts as a premium active ingredient for silane-based damp-proofing systems.

2. Deep Concrete Silane Impregnation

Designed for heavy-duty infrastructure including seaports, piers, bridges, tunnels, elevated highways, and basements. Provides superior, long-lasting protection against water ingress, chloride ion attack, salt scaling, and freeze-thaw damage. Highly suitable for high-density and high-strength alkaline concrete.

3. Facade & Masonry Protection

Excellent penetrating water repellent for exterior walls, brickwork, and mineral renders/plasters. Prevents moisture absorption, efflorescence (salt bursting), and biological growth without altering the original appearance or breathability.

4. Surface Modification for Mineral Fillers

Modifies the surface of inorganic fillers such as silica, calcium carbonate, talc, mica, and fiberglass. Significantly improves hydrophobicity, dispersibility, and compatibility in polymer matrices.

5. Active Formulation Ingredient

Serves as the primary raw material (monomer) for formulating solvent-based or water-based water repellent emulsions/creams, delivering strong penetrability, outstanding weatherability, and extreme alkali resistance.

Packaging

In 20kg pail, 180kg drum and 800kg IBC

Safety and Storage

Keep in a cool and dry place and avoid storage in direct sunlight. Shelf life is 12 months. It is non-hazardous substance.

Contact Information

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