

PRODUCT DATA SHEET

Sikagard®-706 Thixo

Silane based water repellent impregnation cream

PRODUCT DESCRIPTION

Sikagard®-706 Thixo is a one-component reactive silane based impregnation cream. It is a solvent free product with ~ 80% content of active substance. Sikagard®-706 Thixo complies with the highest requirements of EN 1504-2 for hydrophobic Impregnation (penetration depth class II & resistance to freeze-thaw cycles and chloride ion penetration) and NCHRP Report 244 Series II & IV.

USES

Sikagard®-706 Thixo is used as water-repellent impregnation (hydrophobic treatment) for absorbent substrates such as:

- Marine structures
- Pilings
- Piers
- Bridge decks
- Building facades

CHARACTERISTICS / ADVANTAGES

- Non-sag (thixotropic) consistency, allowing wastage-free application of sufficient quantities and assuring deep penetration.
- Reduction of water absorption.
- Reduction of absorption of aggressive or deleterious agents dissolved in water (i.e. de-icing salts or chloride from marine environment).
- No noticeable change of water vapor permeability.
- Not film forming.
- Ready to use.
- Long term efficiency, deep penetration.
- Increases the resistance of concrete to freeze and thaw cycles and de-icing salts.
- Resistant to sea water.
- Low VOC content.
- Waste free.
- Non-vapor Barrier.

APPROVALS / STANDARDS

- Conforms with NCHRP Report 244 Series II & IV.
- Conforms to the requirements of LPM-qualification test to SIA 162/5, Report A-20 450-1 of 19.04.1999. (Water absorption, penetration depth, alkali resistance, water vapor diffusion, resistance to freeze thaw cycles and de-icing salts).
- Conforms to the requirement of the "Bro 2002" Swedish National Road Administration (SNRA) publication No. VV2002:47 report reference F507580 Arev.
- Conforms to the requirements of the EN 1504-2 class II – Polymer Institute report P 5672-E dated 9th August 2007.

PRODUCT INFORMATION

Chemical Base	Silane
Packaging	5 gallon pail, 55 gallon drum
Appearance / Color	White paste / cream (transparent after application and drying)
Shelf Life	12 months from date of production if stored in unopened, undamaged and original sealed packaging
Storage Conditions	Store in dry and cool conditions. Protect from moisture Condition material between 40°F and 95°F prior to application
Density	~ 0.900 kg/l (at 68 °F [20 °C])
pH-Value	~8
Active Content	~ 80 %
Water Absorption	< 7.5 % (EN 13580)

TECHNICAL INFORMATION

Resistance to Alkalinity	<10%
Freeze Thaw De-Icing Salt Resistance	Comply (EN 13581)
Penetration Depth	Class II ≥ 10 mm Note: Test performed on concrete with W/C 0.70
Drying Rate Coefficient	Class I: > 30 % (EN 13579)

SYSTEM INFORMATION

System Structure	1–2 coats of Sikagard®-706 Thixo
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APPLICATION INFORMATION

Coverage	Between ~200–250 sq.ft/gal. can be applied in one operation to vertical and sloped surfaces without loss of material. The exact amount depends on the absorbency of the substrate. At higher application rates, the impregnating agent might liquefy at the top of the concrete and it may start to run off. A second coat may be applied at any time but is usually unnecessary. A preliminary trial should be carried out to assess the penetration depth in the given substrate.
Ambient Air Temperature	40 °F (5 °C) min. / 100 °F (40 °C) max.
Substrate Temperature	40 °F (5 °C) min. / 95 °F (35 °C) max.
Substrate Moisture Content	<6 % when measured with Tramex method
Waiting / Recoat Times	Can be overcoated with water and solvent based polymer paint - contact the proposed paint manufacturer for recommendations. Sikagard®-706 Thixo can be used as water repellent primer under many Sikagard® protective coatings. Penetration of water is thus prevented at possible weak spots or in the event of damage to the top coat and the risk of consequential damages such as paint flaking can be reduced. Waiting time: minimum 5 hours, maximum 1 week.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Free of dust, dirt, oil, efflorescence and existing paint coats.
Cracks in concrete more than 300 µm must be repaired prior to application of the hydrophobic treatment.
Cleaning is best done with suitable detergents or by light blast cleaning, steam cleaning etc.
Best results are obtained on dry, very absorbent substrates. The substrate must look dry with no damp patches.

MIXING

Sikagard®-706 Thixo is supplied ready for use and should not be thinned or diluted.

APPLICATION

Sikagard®-706 Thixo is applied using airless spray, brush or long-hair roller (including automatically feed roller).

CLEANING OF TOOLS

Clean all tools and application equipment with Colma Cleaner immediately after use. Hardened / cured material can only be mechanically removed.

LIMITATIONS

- Best results are achieved when Sikagard®-706 Thixo is applied on 28 days old concrete – however, due to its high alkali resistance, it is still possible to apply it at a very early age.
- Areas such as window frames which still need to be painted must be securely covered to avoid contact with Sikagard®-706 Thixo.
- Areas not to be impregnated such as window panes need to be protected from being accidentally contaminated with Sikagard®-706 Thixo.
- Sikagard®-706 Thixo can damage some coatings and bituminous products.
- Sikagard®-706 Thixo can lead to darkening of concrete, apply sample areas first.
- Cannot be overcoated with limewash or cement paint.
- Apply Sikagard®-706 Thixo onto a sample area to confirm consumption rates versus required penetration depth.
- Refer to the latest Method Statement for detailed information regarding surface preparation, application method, etc.

SCAQMD Rule 1113

(A) Used only for reinforced concrete bridge structures for transportation projects within 5 miles of the coast or above 4,000 feet elevation; or for restoration and/or preservation projects on registered historical buildings

that are under the purview of a restoration architect.
(B) Penetrates into concrete and masonry substrates and chemically react to form covalent bonds with naturally occurring minerals in the substrate.
(C) Lines the pores of concrete and masonry substrates with a hydrophobic coating, but do not form a surface film.
(D) Improves water repellency at least 80 percent after application on a concrete or masonry substrate. This performance must be verified on standardized test specimens, in accordance with one or more of the following standards: ASTM C67, or ASTM C97/97M, or ASTM C140.
(E) Provides a breathable waterproof barrier for concrete or masonry surfaces that does not prevent or substantially retard water vapor transmission. This performance must be verified on standardized test specimens, in accordance with ASTM E96/E96M or ASTM D6490.
(F) Meets the performance criteria listed in the National Cooperative Highway Research Report 244 (1981), surface chloride screening applications, for products labeled and formulated for vehicular traffic.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

OTHER RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates (“SIKA”), the user must always

read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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