BUILDING TRUST

PRODUCT DATA SHEET

Sikagard®-740 W

SILANE BASED REACTIVE WATER REPELLENT IMPREGNATION

CE

PRODUCT DESCRIPTION

Sikagard®-740 W is a one-component low viscosity, reactive impregnation for concrete and cementitious substrates based on concentrated Silane emulsion. Sikagard®-740 W complies with the requirements of EN 1504-2 for hydrophobic Impregnation (penetration depth class I & resistance to freeze and thaw salt stresses)

USES

Sikagard®-740 W is used as water-repellent impregnation (hydrophobic treatment) for absorbent substrates such as concrete in civil engineering or building concrete structures in both vertical and horizontal traffic area:

- Suitable for protection against ingress (Principle 1, method 1.1 of EN 1504-9)
- Suitable for moisture control (Principle 2, method 2.1 of EN 1504-9)
- Suitable for increasing the resistivity (Principle 8, method 8.1 of EN 1504-9)

CHARACTERISTICS / ADVANTAGES

- Good penetration
- Economic and easy to use
- Reduces capillary water absorption, protection against driving rain and splashing on vertical areas
- Reduction of absorption of aggressive or deleterious agents dissolved in water (i.e. chlorides)
- No change in water vapour permeability
- Increases the resistance of concrete to freeze and thaw cycles and de-icing salts
- Water based emulsion, Low VOC
- Resistant to sea water
- Ready to use

APPROVALS / STANDARDS

- Conformity to the requirements of the EN 1504-2 class I – MPL, Sika Tüffenwies dated July 2009
- CTL (US) report, April 2009: Scaling resistance (ASTM C 627 / C 672M-03), Rapid Chloride permeability (ASTM C 1202-08), NCHRP Report 244 Series II & IV, AASHTO T 259 & T 260 Chloride penetration.
- AMEC (Canada), January 2010, Compliance to ALBERTA Infrastructure and transportation specifications
- Hydrophobic impregnation according to EN 1504-2, DoP 02 03 03 01 002 0 000048 1105; certified by Factory Production Control Body: 0921; certificate 0921-CPD-2050 and provided with the CE-mark

PRODUCT INFORMATION

Chemical Base	Alkoxysilane
Packaging	19 kg (20 l) pail
Appearance / Colour	Milky water like liquid emulsion.
Shelf Life	9 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 and frost.	
Density	~0.950 kg/l (at +25 °C)	
Active Content	~40%	
Volatile organic compound (VOC) content	< 350 g/lt	(ASTM D 5095 91 / EPA Method 24)

TECHNICAL INFORMATION

Resistance to Alkalinity	< 10%		(EN 13580)
Freeze Thaw De-Icing Salt Resistance	Complies		(EN 13581)
Penetration Depth	< 10 mm *Test performed on concrete with a W/C = 0.70	Class I	(EN 1504-2)
Water Absorption	< 7.5%		(EN 13580)
Drying Rate Coefficient	Class I:	>30%	(EN 13579)

SYSTEM INFORMATION

System Structure	2–3 coats applied ”wet on wet”

APPLICATION INFORMATION

Consumption	Dependent on absorbency of the substrate as well as the required penetration depth: ~ 100 to 150 g/m² per coat
Ambient Air Temperature	+5 °C min. / +35 °C max.
Substrate Temperature	+5 °C min. / +35 °C max.
Substrate Moisture Content	<5-6% when measured with Tramex method
Waiting Time / Overcoating	Can be overcoated with water and solvent based polymer paint - contact the proposed paint manufacturer for recommendations. Sikagard®-740 W can be used as a 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.
Curing Treatment	Sikagard®-740 W does not require any special curing but must be protected from rain for at least 6 hours at +20 °C.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

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

MIXING

Sikagard®-740 W is supplied ready for use and must not be diluted.

APPLICATION

Sikagard®-740 W is applied using a low-pressure spray, airless spray, brush or roller, in a single pass from bottom up taking care not to let the product run. Apply subsequent pass “wet on wet” until the required consumption is achieved.
On horizontal surface, use flooding technique but avoid excessive ponding on the surface.

CLEANING OF TOOLS

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

LIMITATIONS

- Best results are achieved when Sikagard®-740 W is applied on 28 days old concrete – however, due to its high alkali resistance; it is still possible to apply it at an early age – lower penetration might then be expected.
- Areas such as window frames which still need to be painted must be securely covered to avoid contact with Sikagard®-740 W.
- Areas not to be impregnated such as window panes need to be protected from being accidentally contaminated with Sikagard®-740 W.
- Sikagard®-740 W can damage some coatings and bituminous products.
- In rare situations, Sikagard®-740 W might lead to slight darkening of the concrete, apply to a sample areas first.
- Cannot be overcoated with limewash or cement based paints.
- Apply Sikagard®-740 W onto a sample area to confirm consumption rates versus penetration depth.

VALUE BASE

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

LEGAL NOTES

SIKA LIMITED
Watchmead
Welwyn Garden City
Hertfordshire, AL7 1BQ
Tel: 01707 394444
Web: www.sika.co.uk
Twitter: @SikaLimited