

Sikagard®-740 W

Silane based reactive water repellent impregnation

Product Description

Sikagard®-740 W is a one part 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)
Sikagard®-740 W is classified as sealer Type 1b to the ALBERTA infrastructure and transportation specifications.

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

Tests

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



Product Data

Form

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| Appearance / Colour | Milky water like liquid emulsion |
| Packaging | 19 kg (20 lt) yellow pail and 210 kg (200 lt) drum |

Storage

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| Storage Conditions / Shelf Life | 9 months from date of production if stored in unopened, undamaged and original sealed packaging in dry and cool conditions Protect from moisture. |
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Technical Data

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| Chemical Base | Alkoxysilane (~40% active content) |
| Density | ~ 0.950 kg/l (at +25 °C) |
| VOC | <350 g/lt ASTM –D 5095 – 91 / EPA Method 24 |
| Resistance to Freeze-Thaw-Salts Stress | Comply (EN 13581) |
| Depth of Penetration | Class I: < 10 mm Test performed on concrete with a W/C = 0.70 |
| Water Absorption | < 7.5% (EN 13580) |
| Alkali Resistance | < 10% (EN 13580) |
| Drying Rate Coefficient | Class I: > 30% (EN 13579) |

System Information

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| System Structure | 2 - 3 coats applied "wet on wet" |
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Application Details

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| Consumption | Dependent on absorbency of the substrate as well as the required penetration depth: ~ 100 to 150 g/m ² per coat |
| Substrate Quality | Free of dust, dirt, oil, efflorescence and existing paint coatings. Cracks in concrete more than 300 microns must be repaired first prior to carry out the hydrophobic treatment. |
| Substrate Preparation | 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. |

Application Conditions / Limitations

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| Substrate Temperature | +5 °C min. / +35 °C max. |
| Ambient Temperature | +5 °C min. / +35 °C max. |

Application Instructions

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| Mixing | Sikagard [®] -740 W is supplied ready for use and must not be diluted. |
| Application Method / Tools | 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. |

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| Cleaning of Tools | Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be mechanically removed. |
| Overcoatability | 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. |
| Notes on Application / 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 cases, Sikagard®-740 W might lead to light darkening of concrete, apply sample areas first. Cannot be overcoated with limewash or cement paint. Apply Sikagard®-740 W onto a sample area to confirm consumption rates versus penetration depth. Refer to the latest Method Statement for detailed information regarding surface preparation, application method, etc. |
| Curing Details | |
| 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. |
| 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. |
| Health and Safety Information | For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data. |
| Legal Notes | The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request. |



台灣西卡股份有限公司
33849 桃園縣蘆竹鄉富國路三段 1380 號
TEL :03-352-8622 FAX: 03-352-0470
sika@tw.sika.com / www.sika.com.tw

Sika Services AG
Tüffenwies 16
CH-8048 Zurich
Switzerland

Phone +41 44 436 40 40
Telefax +41 44 436 46 86
www.sika.com

