FLOORING
Sikafloor® HardTop
FAST INDUSTRIAL SCREEDING SYSTEMS
CEMENTITIOUS FLOORING
PROPER INDUSTRIAL FLOORING SYSTEMS ARE the foundation for safe, productive and continuous operations. Sikafloor® HardTop systems for industrial flooring meet or exceed all the latest standards and requirements for both new and refurbishment work. The family of Sikafloor® HardTop systems provide customers with rapid return-to-service and finishing options for high quality, reliable industrial flooring.

TIME IS MONEY! DEPENDING UPON THE FINISH SELECTED INSTALLATIONS CAN BE ACHIEVED WITHIN ONE OR TWO DAYS.

Day 1

Day 2
Sikafloor® HardTop
FAST SCREED SOLUTIONS

TODAY’S INDUSTRIAL BUILDING COMPLEX DEMANDS flooring systems to support their operations. In addition, these systems frequently need to be installed overnight or over the weekend to prevent interruption in operations. Flooring systems must provide rapid high strength development, abrasion resistance, compressive strength, flexural strength, and a finish compatible with the industrial process. Sika has developed a family of cementitious flooring systems to meet this demand.

The Sikafloor® HardTop cement-based mortar systems are designed specifically for industrial flooring and can be installed in new construction projects as well as refurbishment of worn and damaged concrete. Selected Sikafloor® HardTop systems are suitable for interior or exterior use, wet or dry operations, and on-ground slabs or balconies. Depending upon the finish selected installations can be achieved within one or two days.

**THE HARDTOP SYSTEM BUILD UPS**

The Sikafloor® HardTop cement-based mortar systems are designed specifically for industrial flooring and can be installed in new construction projects as well as refurbishment of worn and damaged concrete. Selected Sikafloor® HardTop systems are suitable for interior or exterior use, wet or dry operations, and on-ground slabs or balconies. Depending upon the finish selected installations can be achieved within one or two days.

**FINISH OPTIONS**
- Sikafloor® HardTop Systems can be finished with a simple smooth Trowel Finish for fast turn-around and return to service.
- Sikafloor® HardTop mortars may be coated on the day of installation with Sikafloor®-161 epoxy primer resin and broadcast for subsequent high-performance floor coatings.
- Sikafloor® HardTop mortars can also be finished the following day with special silane-based impregnation Sikagard®-914 W Stainprotect Primer / Sikagard®-915 Stainprotect to provide excellent water and oil repellent effect and a durable stain protection.
- Sikagard®-916 pigmented hybrid lithium silicate penetrates into the Sikafloor® HardTop mortar where it reacts with the substrate to increase wear resistance and protects the surface against the penetration of aqueous liquids, oils, and greases.

**WHY ARE Sikafloor® HardTop MORTARS AN ADVANTAGE?**
- Sikafloor® HardTop mortars are cementitious, polymer modified, fast hardening, rapid load bearing and overcoatable, horizontal levelling mortars.
- They are designed for rapid installation and fast strength and hardening development. Installation can be as quick as one to two days.
- System component options to meet existing surface conditions and performance requirements.
- They can be installed in new construction or renovation/repurposing applications.
- The systems have negligible shrinkage during hardening and curing to ensure good bond to the substrate.

- They can be installed in exterior or interior environments.
- They can be finished with any Sika high performance flooring systems.

**WHY YOU SHOULD CHOOSE Sikafloor® HardTop Systems?**
- Reliable and proven Sika high product quality
- Sika support team for system selection and installation
- Outstanding application properties
- Unsurpassed performance properties and system finish options
- Minimal shrinkage during hardening and cure at variable thicknesses
- Rapid hardening for immediate use (next day)
- May be covered with all kind of flooring materials after just 18 hours
- High level of hardness, abrasion resistance and strength

**Sikafloor® HardTop SYSTEM COMPONENTS**

**Bonding bridges:**
- Sikafloor®-10BB
- Sikafloor®-20 EBB

**Levelling products:**
- SikaScreed® HardTop-60
- SikaScreed® HardTop-70

**Stain protection:**
- Sikagard®-914 W Stainprotection Primer
- Sikagard®-915 Stainprotect
- Sikagard®-916 Hybrid

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**System name** | **Products within the system build up**
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Bonding bridges | Screeds | Sealers / coating
SikaScreed®-10BB | SikaScreed®-20 EBB | Sikafloor® HardTop-60 | Sikafloor® HardTop-70 | Sikagard®-914 W Stainprotect Primer / Sikagard®-915 Stainprotect | Sikagard®-916 Hybrid | Sikafloor®-361 + fully broadcasted
Sikafloor® HardTop CS-56 TrowelFinish | | | | |
Sikafloor® HardTop CS-56 StainProtect | | | | |
Sikafloor® HardTop CS-56 ColourSeal | | | | |
Sikafloor® HardTop CS-56 Rapid | | | | |
Sikafloor® HardTop CS-57 TrowelFinish | | | | |
Sikafloor® HardTop CS-57 StainProtect | | | | |
Sikafloor® HardTop CS-57 ColourSeal | | | | |
Sikafloor® HardTop CS-57 Rapid | | | | |

Parking Villar sur Ollon, trowel finish – broomed.
WHY Sikafloor® Bonding BRIDGE?
To assure a perfect bonding to the prepared concrete substrate a bonding bridge is mandatory. The bonding bridge prevents water loss to the substrate from the SikaScreed® HardTop® mortar. The SikaScreed® HardTop mortar needs the added water for hydration. Incomplete hydration will compromise the system performance properties.

PRODUCTS

**SikaScreed® 10BB**
An efficient, cement-based bonding bridge for SikaScreed® HardTop-70 mortar. SikaScreed®-10 BB may be used on new concrete, existing slabs or other mineral based substrates. The surface must be damp (surface saturated dry-SSD).

**CHARACTERISTICS & ADVANTAGES**
- Highly cost-effective coverage
- Easy application with brush or broom
- Excellent bonding strength
- Mineral based, nontoxic, eco-logically safe
- Emicode EC1Plus

**Packaging**
25 kg bags

**SikaScreed® 20EBB**
A high performance epoxy adhesive for all SikaScreed® HardTop mortars. SikaScreed®-20 EBB may be used on new concrete, existing slabs or other mineral based substrates. This bonding bridge may be applied to dry and damp substrates.

**CHARACTERISTICS & ADVANTAGES**
- Easy application
- Suitable for dry or damp substrates
- Superior bonding strength
- No shrinkage during cure

**Packaging**
Ready mix packaging (A+B): 5 kg or 12.5 kg
SikaScreed® HardTop MORTARS

The SikaScreed® HardTop mortars are designed specifically for industrial flooring. These mortars are designed for rapid installation and high-strength development. SikaScreed® HardTop mortars in combination with the Bonding Bridge have minimal shrinkage resulting in a superior bond to the substrate, as well as designed for fully chemical water binding. SikaScreed® HardTop-60 is ideal for interior thinner (8 – 80 mm) applications, while SikaScreed® HardTop-70 can be used to level more aggressive profiles (10 – 200 mm). SikaScreed® HardTop-70 is freeze-thaw resistant and can be utilized for interior or exterior applications.

**SikaScreed® HardTop MORTARS CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Leveling compound</th>
<th>SikaScreed® HardTop-60</th>
<th>SikaScreed® HardTop-70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use</td>
<td>Interior large areas</td>
<td>Interior – exterior small areas</td>
</tr>
<tr>
<td>Characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>APP/Thickness</td>
<td>8 – 80 mm</td>
<td>10 – 200 mm</td>
</tr>
<tr>
<td>Start troweling</td>
<td>1.5 – 3 h</td>
<td>45 – 60 min.</td>
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<tr>
<td>Troweling time</td>
<td>Long</td>
<td>Normal</td>
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<tr>
<td>Compressive strength (24 h)</td>
<td>~85 N/mm²</td>
<td>~45 N/mm²</td>
</tr>
<tr>
<td>Mechanical class</td>
<td>C60 – F7</td>
<td>C70 – F7</td>
</tr>
<tr>
<td>Abrasion &lt;1.5 mm</td>
<td>2.0 wt. %</td>
<td>2.0 wt. %</td>
</tr>
<tr>
<td>Abrasion resistance</td>
<td>A6</td>
<td>A6 &amp; AR 0.5</td>
</tr>
</tbody>
</table>

**Products**

- **SikaScreed® HardTop-60**
  - Characteristics & Advantages:
    - Easy application, non-tacky
    - Pumpable for large applications
    - Long troweling window, working time
    - Negligible shrinkage during cure
    - Rapid hardening for quick service
    - High wear/abrasion resistance
    - EN 1819 CT-C60-F7
    - EET™ Certified
  - Packaging:
    - 25 kg bags
    - Bigbags
    - One-way-container

- **SikaScreed® HardTop-70**
  - Characteristics & Advantages:
    - Easy application, non-tacky
    - Long potlife (~25 minutes)
    - Negligible shrinkage during cure
    - Rapid hardening for quick service
    - High wear/abrasion resistance
    - EN 1819 CT-C70-F7
    - EET™ Certified
    - EN 1504-3: R4 pcc mortar
  - Packaging:
    - 25 kg bags
Sikagard® STAIN PROTECTION

CEMENTITIOUS FLOORING IS TYPICALLY POROUS by nature and therefore can be easily stained, especially in industrial environments.

Sikagard® Stain Protection can be applied to SikaScreed® HardTop-60 and SikaScreed® HardTop-70 after cure (~18 hours). Sikagard®-914 W Stainprotect Primer penetrates the mortar providing an excellent bond for the Sikagard®-915 Stainprotect silane-based transparent sealer. The Sikagard® Stainprotect products efficiently reduce the penetration of aqueous liquids, grease, oils and other staining elements, either indoors or outdoors maintaining a clean shiny appearance.

In some cases the Sikagard®-914 Stainprotect primer isn’t necessary. Please refer to the method statement.

PRODUCTS

Sikagard®-914 W Stainprotect Primer

CHARACTERISTICS & ADVANTAGES
- Easy spray and roller application
- Low solvent (VOC) content
- Excellent penetrating bond

Packaging
10 liters plastic cannisters

Sikagard®-915 Stainprotect

CHARACTERISTICS & ADVANTAGES
- Solvent based impregnation
- UV and weathering resistant
- Unaffected by de-icing salts
- Oil, diesel and water protection
- Excellent coverage (low consumption)
- Easy spray and microfiber application

Packaging
10 liters plastic cannisters

Sikagard®-916 Hybrid

CHARACTERISTICS & ADVANTAGES
- Easy roller application
- Penetrates and reacts with SikaScreed® HardTop mortar
- UV resistant and non-yellowing
- Pigmented, uniform finish
- Oil, diesel and water protection

Packaging
2K packaging (A+B) = 10 kg.
A = 9.7 kg bucket
B = 0.3 kg bottle
APPLICATION
Application tips and tricks in general. Please refer to the Method Statement

The SikaScreed® HardTop mortar must be applied on the bonding bridge layer “wet on wet”.

SikaScreed® HardTop repair screed system enables fast application. While in the back the team is still placing the screed, in the front the power floating must already start.

Keep in mind that the start of troweling depends on climate conditions and product.

Preserve the water content in the screed, use a PE Sheet to cover the SikaScreed® HardTop mortar for hardening overnight.

Large scale industrial floors refurbishment is most efficiently accomplished with the pumpable SikaScreed® HardTop-60. When using this process it is important to maintain the correct water to mix ratio. The pump approved for application of the SikaScreed® HardTop-60 is the Inotec – Inocomb 1.0 with high pumping capacities and excellent application performance. Bigbag and one-way-container (OWC) technology are also acceptable. The OWC technology is typically used in height restricted areas such as parking garages, or where dust must be prevented.
After some time in service the original protective deck coating system had deteriorated due to the exposure and use, which resulted in water ingress to the structure, allowing the embedded steel reinforcement to corrode and causing damage to the concrete. As a result major repairs and refurbishment was required.

The owners decided to upgrade all of the car park decks with a high quality system meeting OS11a Standards for car park deck coating. Their engineers also demanded a system that would allow the whole build-up to be installed quickly, allowing the parking decks to go back into service within just a few days. Due to the nature of the existing decks the replacement deck coating system also had to accommodate being applied at different layer thicknesses up to 50 mm, and in one area to 80 mm. The materials were also specified to have high early compressive and flexural strength because of the loading, then the finished system had to have a high bond strength on the substrate with very high abrasion resistance and crack bridging ability.

Sika was able to meet all of the demanding requirements from the owners and their engineers using an integrated system build-up of rapid hardening SikaScreed® technology to replace damaged concrete and restore the required levels and falls for drainage, including areas of variable thickness. This was followed with a well-proven OS11a deck system based on Sikafloor® technology that was also fast-curing to a tough, resilient surface to durably withstand the traffic and exposure for the long-term. A complete single-source proven system build-up as the ideal solution.

SikaScreed®-10BB 13,500 kg
SikaScreed® HardTop-60 525,000 kg
Sikafloor®-161 7,500 kg
Sikafloor®-350 27,000 kg
Sikafloor®-375 21,000 kg
Sikafloor®-378 9,750 kg

The project is a logistic center. The 2,000 m² floor was applied in 2018. Project name: Pro Team – Belgrade. Location Belgrade, Dobanovci, Serbia Construction year: 2017/2018. Size: 2,000 m². Other information as introduction: logistic center.

The floor was required to have mechanical and abrasion floor resistance, suitable for frequent traffic of fork-lift vehicles. It should be durable and easy to clean and maintain. Special requirements: high mechanical resistance, fast dry floor, short period of application.

SikaScreed® 20EBB
SikaScreed® HardTop
Sikagard® 9FS Stainprotect

Concrete products:
́ Sika® ViscoCrete® 3030 and 1020
́ Antigel OC

SIKA PRODUCTS

PROJECT PARTICIPANTS
Owner: Real Treuhand Immobilien GmbH, Linz
Contractor: Bauschutz GmbH, Wels
System Manufacturer: Sika Austria GmbH
Date: July 2017 – April 2018
Our most current General Sales Conditions shall apply. Please consult the most current local Product Data Sheet prior to any use.

Sika is a specialty chemicals company with a leading position in the development and production of systems and products for bonding, sealing, damping, reinforcing and protecting in the building sector and the motor vehicle industry. Sika’s product lines feature concrete admixtures, mortars, sealants and adhesives, structural strengthening systems, industrial flooring as well as roofing and waterproofing systems.