

Sika® Systems from Floor to Roof

Requirements for Industrial Flooring in the Automotive Industry

- The mechanical resistance is defined by type (loading, type of tyres, contact area) and the frequency of exposure.
- Impact resistance is related to the specific conditions of each operation. Attention should be paid to areas of high point loading.
- Design life is influenced by the right specification, various types of exposure and maintenance regime.
- Rapid curing properties are necessary in order to provide minimum disruption of the production process.
- Electrical conductivity and antistatic properties are used to prevent electrical interference with sensitive equipment or avoid a build-up to static electricity, which could generate sparks and create a risk of fire or explosion.
- Osmotic blistering can be avoided using Sika EpoCem Technology or Sikafloor dry shake finishes.
- Fire resistance regulations for floors have to be considered and should be supported by certifications and tests in accordance with local standards.
- Chemical resistance is an important factor for floors in areas where aggressive substances are stored or handled and should therefore be carefully considered.
- Hygiene requirements becoming more important to the process of any industry, part of the floor design should be a sophisticated cleaning regime.
- Crack-bridging properties are necessary in order to cope with the structural loading, particularly the dynamic loading. They can also form part of the requirements for water protection laws, such as the WHG norm in Germany for storage and handling areas of aggressive mediums.
- Cleaning and maintenance regimes form the foundation of a satisfactory production environment.
- A well-balanced colour design can influence the behaviour and well-being in the workplace and therefore have an effect on quality and performance.
- Slip resistance can be influenced by the environment (wet or dry), profile of the floor surface or the type of traffic (forklifts or pedestrian). However, the slip resistance and cleaning regime should be carefully balanced.
- Structural requirements, such as static and dynamic loadings imposed during and after construction, should be considered. A floor topping must be capable of withstanding these forces but it can only function as well as the substrate to which it is applied.

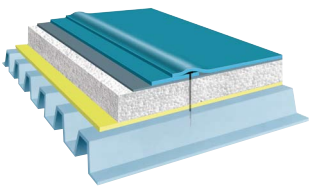
Sika® Systems for Single Ply Roof Waterproofing

New Construction
e.g. Exposed Roofs



Lightweight structures

Mechanically fixed



Sika PVC roof waterproofing sheet membranes:

- Sikaplan® G/VG/VGWT
- Trocal® S/S A1-F (PVC sheet membranes)

Installation

Loose laying with mechanical fixing; hot air welding of lap joints.

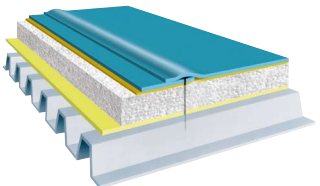
Further System Solutions using:
Trocal® SGmA
Sikalastic®-821/445
Trocal® SGK

Refurbishment
e.g. Exposed Roofs



Recovering of waterproofing membrane

Possibility for additional thermal Insulation if necessary



Refurbishment with the following Sika roofing sheet:

- Trocal® Futura G (TPO sheet membrane)

Installation

Loose laying on bituminous membrane (no separating layer needed), mechanical fixing to structural deck; hot air welding of lap joints.

Further System Solutions using:
Sikaplan® G
Trocal® RV-s
Sikalastic®-445
Trocal® SGK
Trocal® SGmA

Sika Full Range Solutions for Construction

Concrete Production



Sika® ViscoCrete®
Sika® Retarder®
Sika® SikaAer®

Corrosion and Fire Protection



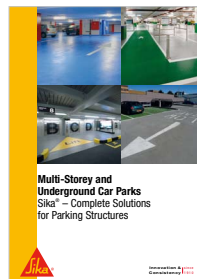
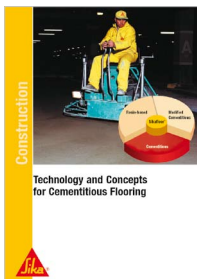
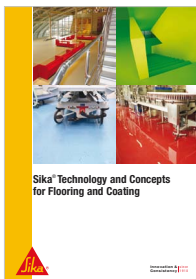
SikaCor®
Sika® Unitherm®

Joint Sealing



Sikaflex®
Sikasil®

Also Available from Sika



Sika Services AG
Business Unit Contractors
Speckstrasse 22
CH-8330 Pfäffikon
Switzerland
Phone +41 58 436 23 80
Fax +41 58 436 23 77
www.sika.com

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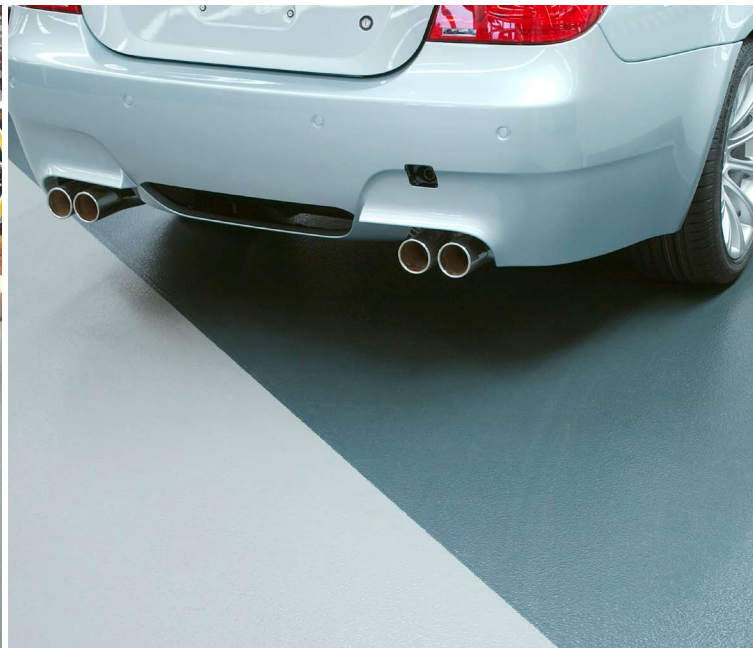
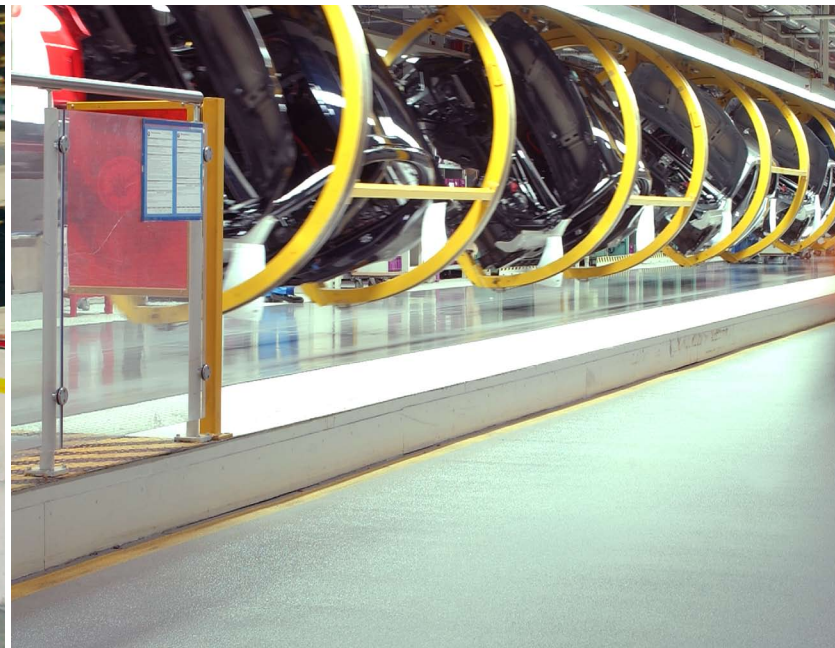
Automotive Industry
Solutions with Sikafloor® Systems
Selection Guide

Innovation & Consistency | since 1910

Innovation & Consistency | since 1910

Flooring in the Automotive Industry

Solutions with Sikafloor® Systems



As a partner to the automotive industry, Sika plays a vital role in the industry's operation processes world-wide. We provide a range of innovative flooring solutions, such as abrasion- and impact-resistant floors in press shops, cost-effective work floors in body-in-white production, high chemical-resistant and antistatic floors for paint shops and high quality flooring systems to ensure the smooth operation of assembly lines and logistics. Sika solutions can also be used for roofing, steel protection, strengthening, sealing and elastic bonding, waterproofing, concrete repair and protection, grouting, fixing and concrete production.

Sikafloor® Systems in Press Shop and Body-In-White Production

Automotive Components take Shape
Heavy equipment and machines are being used for the pressing, shaping and welding of bodywork components. As a result, floors are frequently subject to extreme mechanical stresses as the bodywork components are transported from the welding process to the paint shop area, which can happen several hundred times a day. **Sika® ViscoCrete®** admixtures technology combined with **Sikafloor®** dry shake finish and the right curing compound ensures that the floor can withstand the heavy loading and frequency

of traffic. Heavy-duty epoxy screeds are also used when high slip resistance is of importance. Grouting mortars are free-flowing, high-strength cement- or resin-based mortars, used for filling of voids under machines and other structural elements as well as for the grouting of anchors. Brands include **Sikagard®, SikaGrout®** and **SikaFix®**.

Sikafloor® Systems in Paint Shops

Protection and Brilliance
The paint shop ensures that the car body is protected from environmental influences and gives it its quality finish to the highest aesthetic standard. In addition, paint storage areas require highly chemical-resistant flooring systems with antistatic and crack-bridging properties in accordance with the relevant local ground water protection standards, such as the WHG Norm in Germany. **Sikagard®** and **Sikafloor®** systems are designed to be smooth and without any interfering additives in order to achieve the required high standard.

Sikafloor® Systems in the Assembly

Efficiency at every Step
The final assembly involves a wide variety of tasks, which are carried out with precision. **Sikafloor®** offers high-quality, antistatic,

light-reflective and slip-resistant floors to ensure a smooth running process, which is vital for the assembly line. For highly sensitive areas the use of conductive **Sikafloor® ESD** systems is essential.

Sikafloor® Systems in Logistics

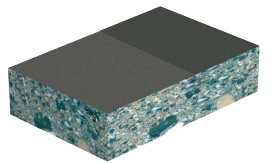
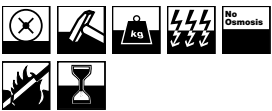
Solutions in Time
Effective logistics are essential for the whole production process to ensure that thousands of cubic meters of material are delivered to the assembly every day. **Sikafloor®** solutions provide the foundation to make sure that the operations flow smoothly and the right material can be transported to the right place at the right time.

Sika® Systems for Single Ply Roof Waterproofing

New Construction and Refurbishment
Sika provides a wide range of products for the roof waterproofing layer and a complete technical advisory service. Sika roofing membranes can be used in new construction or refurbishment, on exposed or ballasted roofs of lightweight or concrete structures.

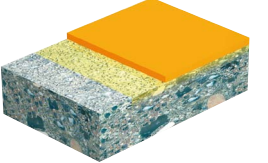
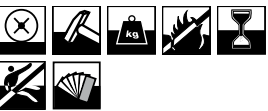
Press Shop and Body-In-White Production

Heavy-Duty Surface Hardening



- Excellent abrasion resistance
- Excellent impact resistance
- Extremely durable
- Conductive in accordance with BS 2050
- Colours available

Coloured, Heavy-Duty Epoxy Screed



- High wear resistance
- Good chemical resistance
- Coloured
- Slip resistance (optional)

Build-up:

Monolithic concrete slab using **Sikament®** or **Sika® ViscoCrete®** SCC technology.

Dry shake floor hardener **Sikafloor®-1 MetalTop** applied to the fresh concrete slab before the powerfloat finish, surface-cured and dust-proofed with **Sikafloor®-ProSeal**.

Build-up:

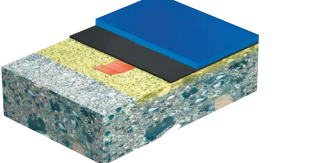
Primer: **Sikafloor®-156/-161**
A solvent-free, clear epoxy primer.

Epoxy screed: **Sikafloor®-263 SL**
A solvent-free, coloured epoxy binder for self-smoothing screeds or broadcast systems. For systems with increased slip resistance, broadcast with quartz sand and sealed with **Sikafloor®-264**.

Total system thickness: 3 – 4 mm

Paint Shops

Highly Chemical-Resistant, Crack-bridging, Antistatic Epoxy Screed



- Medium wear resistance
- High chemical resistance
- Crack-bridging ability
- Electrostatically conductive in accordance with IEC 61340-4-1
- Coloured
- In accordance with WHG (German ground water protection law)

Build-up:

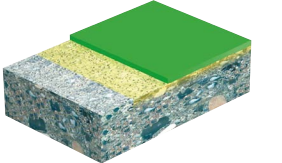
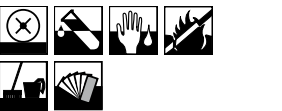
Primer: **Sikafloor®-156/-161**

Conductive layer: **Sikafloor®-220 W**

Epoxy screed: **Sikafloor®-390 AS**
A solvent-free, flexible and highly chemical-resistant epoxy screed with antistatic properties.

Total system thickness: 1.7 mm

Coloured, Solvent-Free Epoxy Screed



- Medium wear resistance
- Good chemical resistance
- Coloured
- Decontaminable in accordance with DIN 25415 and BS 4247

Build-up:

Primer: **Sikafloor®-156/-161**

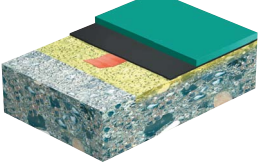
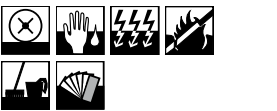
Epoxy screed: **Sikafloor®-263 SL**

A solvent-free, coloured epoxy binder for self-smoothing screeds.

Total system thickness: 1–2 mm

Assembly Lines

Electrostatically Conductive, Solvent-Free Epoxy Screed



- Medium wear resistance
- Medium chemical resistance
- Coloured
- Electrostatic conductive in accordance with IEC 61340-4-1

Build-up:

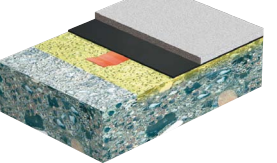
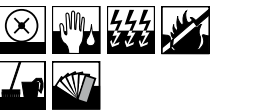
Primer: **Sikafloor®-156/-161**

Conductive layer: **Sikafloor®-220 W**

Epoxy screed: **Sikafloor®-262 AS**
A solvent-free, electrostatic conductive, coloured epoxy resin for self-smoothing screeds.

Total system thickness: 1.5 mm

Coloured, Solvent-Free Epoxy Screed for ESD Areas



- Medium wear resistance
- Medium chemical resistance
- Coloured
- Conformed to the requirements of IEC 61340-5-1 and ANSI/ESD S20.20

Build-up:

Primer: **Sikafloor®-156/-161**

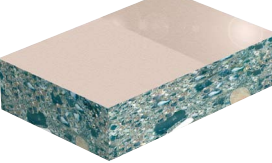
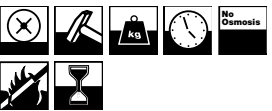
Conductive layer: **Sikafloor®-220 W**

Epoxy screed: **Sikafloor®-235 ESD**
A solvent-free, self-smoothing, coloured epoxy resin for ESD areas.

Total system thickness: 1.5 mm

Logistic Areas

Tough, Economic Surface Hardening



- Very good abrasion resistance
- Very good impact resistance
- Tough and durable
- Cost-effective
- Colours available

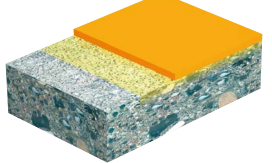
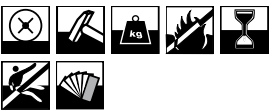
Build-up:

Monolithic concrete slab using **Sikament®** or **Sika® ViscoCrete®** SCC technology.

Dry shake floor hardener **Sikafloor®-2 SynTop** applied to the fresh concrete slab before the powerfloat finish, surface-cured and dust-proofed with **Sikafloor®-ProSeal**.

Total system thickness: 2–3 mm.

Coloured, Smooth Epoxy Screed



- Good wear resistance
- Good chemical resistance
- Coloured
- Easy to clean

Build-up:

Primer: **Sikafloor®-156/-161**

Epoxy screed: **Sikafloor®-263 SL**

A solvent-free, coloured epoxy binder for self-smoothing screeds.

Total system thickness: 2–3 mm.

