



FLOORING SOLUTIONS FOR AUTOMOTIVE INDUSTRY

SELECTION GUIDE

BUILDING TRUST



FLOORING SOLUTIONS FOR THE AUTOMOTIVE INDUSTRY

SIKA'S FLOORING SYSTEMS have been installed on millions of square meters floors within all the largest car manufacturers, in their manufacturing facilities, service workshops and other adjacent areas.

Our innovative flooring systems range from impact and abrasion resistant floors normally used in press shops to cost effective work floors in body-in-line production, high chemical resistant and electric conductive floors for paint shops and high quality flooring systems to ensure the smooth operation of assembly lines and logistics. In addition SikaFloor® solutions are used in car showrooms, service areas and office facilities. Sika's large range of systems and wide experience in the industry make Sika a trusted partner in automotive facility projects.



A successful flooring system design counts not only on the right specification of the floor covering systems, but also on the details and solutions to seal the various junctions, such as joints in the floors, wall-floor joints, joints around drainage channels or gullies, etc.. Sika supplies compatible detailing solutions with different technologies. Among those is the latest innovative Sika® FloorJoint system range which makes the joint structure in floor slabs so smooth that hardly vibration or noise is noticeable under direct car and forklift traffic. The Sika® FloorJoint carbon fiber reinforced composite panels are prefabricated and easy and fast to install, resulting in a high mechanically resistant and smooth joint structure in the floor.



REQUIREMENTS FOR INDUSTRIAL FLOORING IN THE AUTOMOTIVE INDUSTRY



The mechanical resistance is defined by the types (loading, types 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 regimes.



Rapid curing property is necessary in order to provide minimum disruption of the production process.



Osmotic blistering can be avoided using Sika EpoCem® Technology or Sikafloor® dry shake finishes.



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.



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 when the substrate to which it is applied functions too.



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 become more and more important for the process of all industry, therefore the floor design should be a sophisticated cleaning regime.



Cleaning and maintenance regimes form the foundation of a satisfactory production environment.



A well-balanced color design can influence the behavior and well-being in the workplace and therefore has an effect on quality and performance.



Fire resistance regulations for floors have to be considered and should be supported by certifications and tests in accordance with local standards.



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.



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.


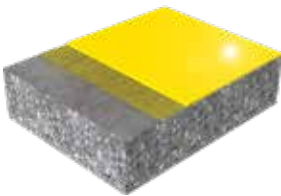
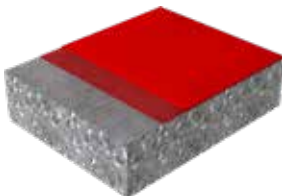
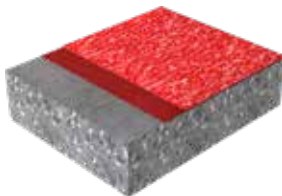






Sikafloor® SYSTEMS IN BODYSHOP AND BODY-IN-WHITE

This is the place where automotive components take shape. Metal sheets are being pressed and shaped to form body components and welded together to a bodywork by heavy equipment and machines. In the body shop area the 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. Sikafloor® HardTop dry shake and Sikafloor® PurCem Gloss cementitious hybrid systems perfectly fit the hard environment in body shop areas. 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®.

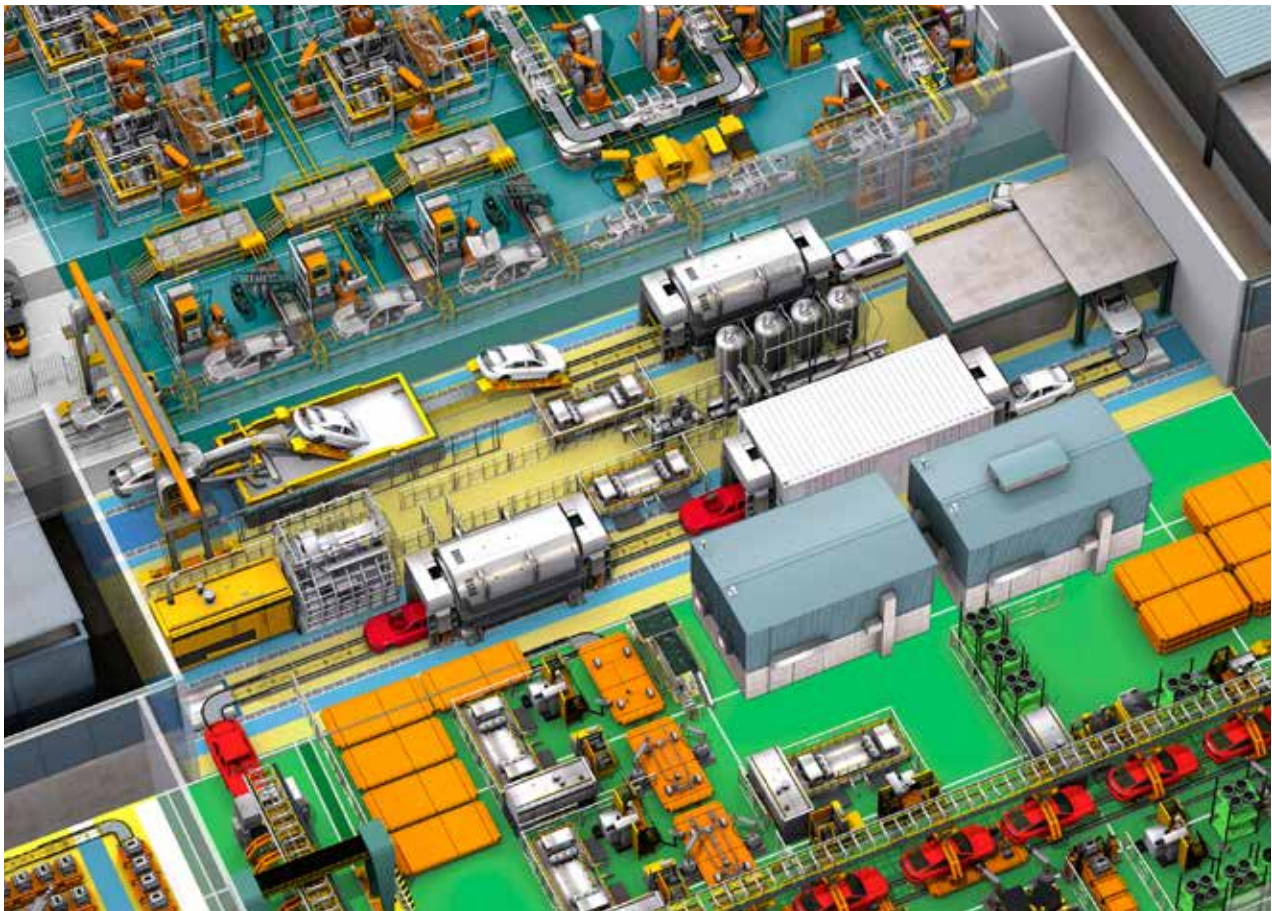




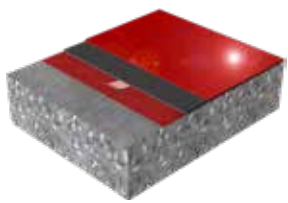
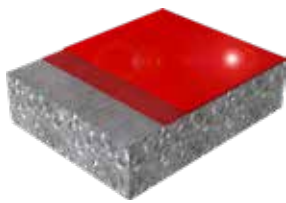




SYSTEM	Sikafloor® HardTop	Sikafloor® PurCem® HS-26 Gloss	Sikafloor® MultiDur WS-10	Sikafloor® MultiDur ET-14
				
DESCRIPTION	Heavy duty monolithic finish for concrete floors	Medium duty, gloss and smooth finish, polyurethane cement hybrid flooring system.	Double water based epoxy roller coat	Textured unicolor epoxy roller coat
NOMINAL THICKNESS / LAYERS	2.5 - 3 mm 1 - 2	1,5 - 3 mm 2	< 1 mm 2	< 1 mm 2
CHARACTERISTICS	<ul style="list-style-type: none"> ■ Excellent abrasion resistance ■ Excellent impact resistance ■ Extremely high durable ■ Non corroding metallic finish ■ Color options 	<ul style="list-style-type: none"> ■ High mechanical resistance ■ Good chemical resistance ■ Glossy and scratch resistance surface ■ Extremely low dirt pick up ■ Easy clean and maintain ■ Non-tainting, odorless during application ■ VOC free and environmental friendly ■ Tolerant to moisture in the substrate ■ Very good life cycle cost performance ■ Color options 	<ul style="list-style-type: none"> ■ Light to medium wear resistance ■ Surface stabilization ■ Prevent surface dusting ■ Color options 	<ul style="list-style-type: none"> ■ Good wear and abrasion resistance ■ Good chemical resistance ■ Slip resistant ■ Easy cleaning ■ Color options
SYSTEM COMPONENTS	<ul style="list-style-type: none"> ■ Sikament® or Sika® ViscoCrete® slab ■ Sikafloor®-1 MetalTop ■ Sikafloor® ProSeal-22 	<ul style="list-style-type: none"> ■ Sikafloor® -21/-24/-210/-260 ■ Sikafloor®-260 PurCem® 	<ul style="list-style-type: none"> ■ Sikafloor®-2540 W or -2550 W ■ Sikafloor®-2540 W or -2550 W 	<ul style="list-style-type: none"> ■ Sikafloor®-156 or -161 or -160 ■ Sikafloor®-264 Thixo
				

Sikafloor® SYSTEMS IN PAINT SHOPS

In the paint shop, through a series of processing steps the car body is protected and coated against environmental influences and given its quality finish to the highest aesthetic standard. The areas in paint shop require highly chemical resistant flooring systems with electric conductivity and crack-bridging

properties to ensure the safety and fulfil the environmental standards. Sikafloor® MultiDur electric conductive and chemical resistant systems are designed to achieve the required high standard.

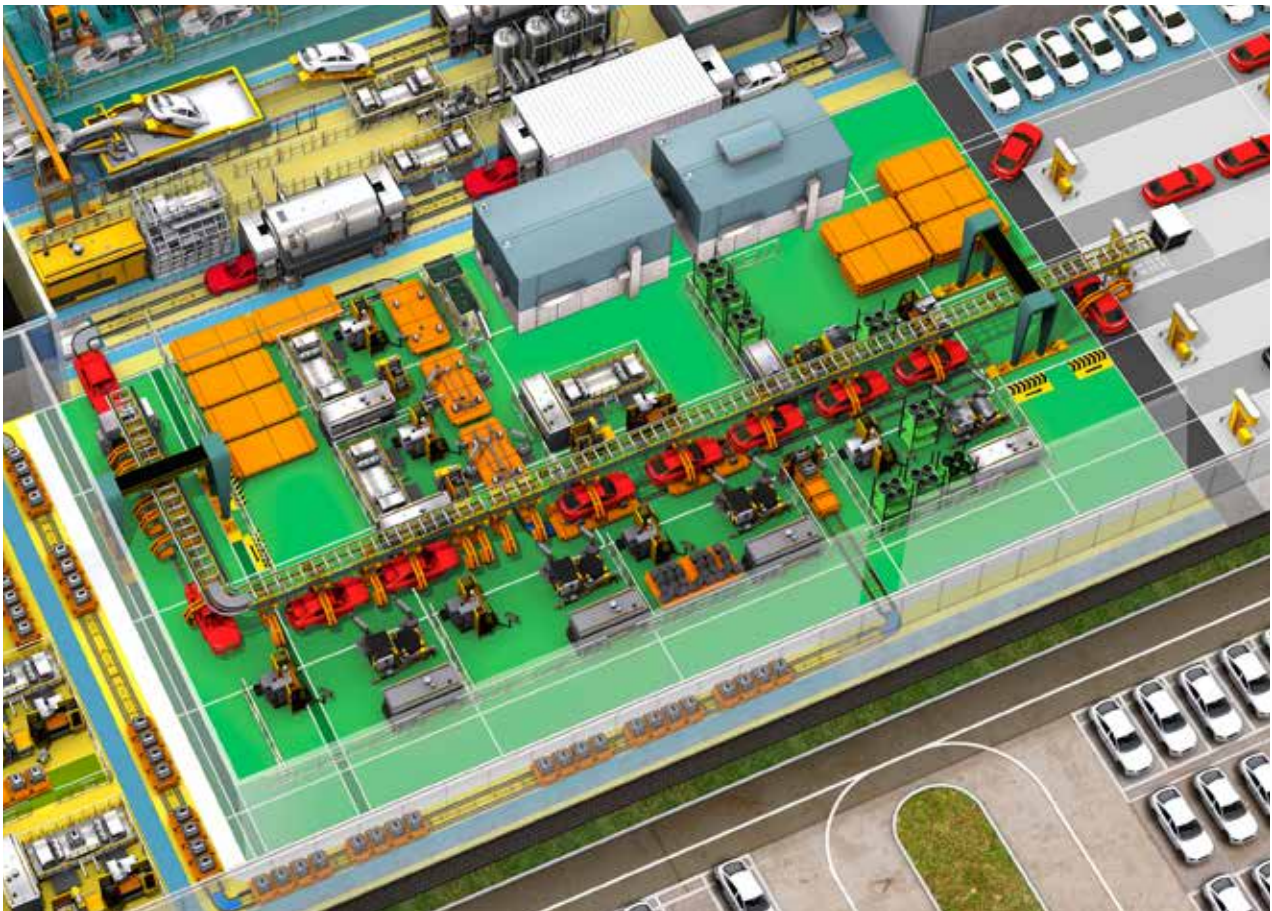


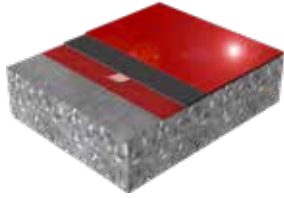
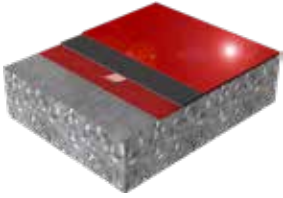

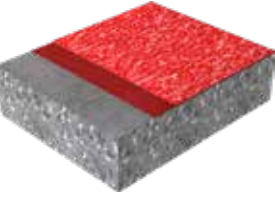




SYSTEM	Sikafloor® MultiDur® ES-39	Sikafloor® MultiDur ES-24 ECF	Sikafloor® MultiDur® ES-39 ECF	Sikafloor® MultiDur ES-24
				
DESCRIPTION	Smooth unicolor epoxy floor covering with high chemical resistance	Smooth unicolor conductive epoxy floor covering	Smooth unicolor ECF epoxy floor covering with high chemical resistance	Smooth unicolor epoxy floor covering
NOMINAL THICKNESS / LAYERS	2 mm 2	~ 2 mm 3	2 mm 3	2 - 3 mm 2
CHARACTERISTICS	<ul style="list-style-type: none"> ■ Crack bridging ■ High chemical resistance ■ Good wear resistance ■ Smooth surface ■ Color options 	<ul style="list-style-type: none"> ■ High wear and abrasion resistance ■ Good chemical resistance ■ Color options ■ Easy to clean ■ Conductive 	<ul style="list-style-type: none"> ■ Crack bridging ■ High chemical resistance ■ Good wear resistance ■ Smooth surface ■ Conductive ■ Color options 	<ul style="list-style-type: none"> ■ High wear and abrasion resistance ■ Good impact resistance ■ Good chemical resistance ■ Medium thermal shock resistance ■ Easy cleaning ■ Color options
SYSTEM COMPONENTS	<ul style="list-style-type: none"> ■ Sikafloor®-156 or -161 or -160 ■ Sikafloor®-390 N 	<ul style="list-style-type: none"> ■ Sikafloor®-156 or -161 or -160 ■ Sikafloor®-220 W Conductive ■ Sikafloor®-262 AS N 	<ul style="list-style-type: none"> ■ Sikafloor®-156 or -161 or -160 ■ Sikafloor®-220 W ■ Sikafloor®-390 N ECF 	<ul style="list-style-type: none"> ■ Sikafloor®-156 or -161 or -160 ■ Sikafloor®-263 SL
				

Sikafloor® SYSTEMS IN ASSEMBLY LINES

The final assembly, also called Trim-Chassis-Final, involves a wide variety of tasks requiring high precision; seats, dashboards, windows and other trim are added. Close to the end of the department the engines, transmission, and tires are mounted into the car. Assembly line has less automatization and it is vital to ensure a smooth running process. The floors need to be high-quality and light-reflective with defined

slip-resistance. In some highly sensitive areas the use of electric dissipative ESD systems are essential. Sophisticated and attractive Sikafloor® MultiDur ESD electric dissipative industrial flooring systems are designed to high standards required in assembly line areas.

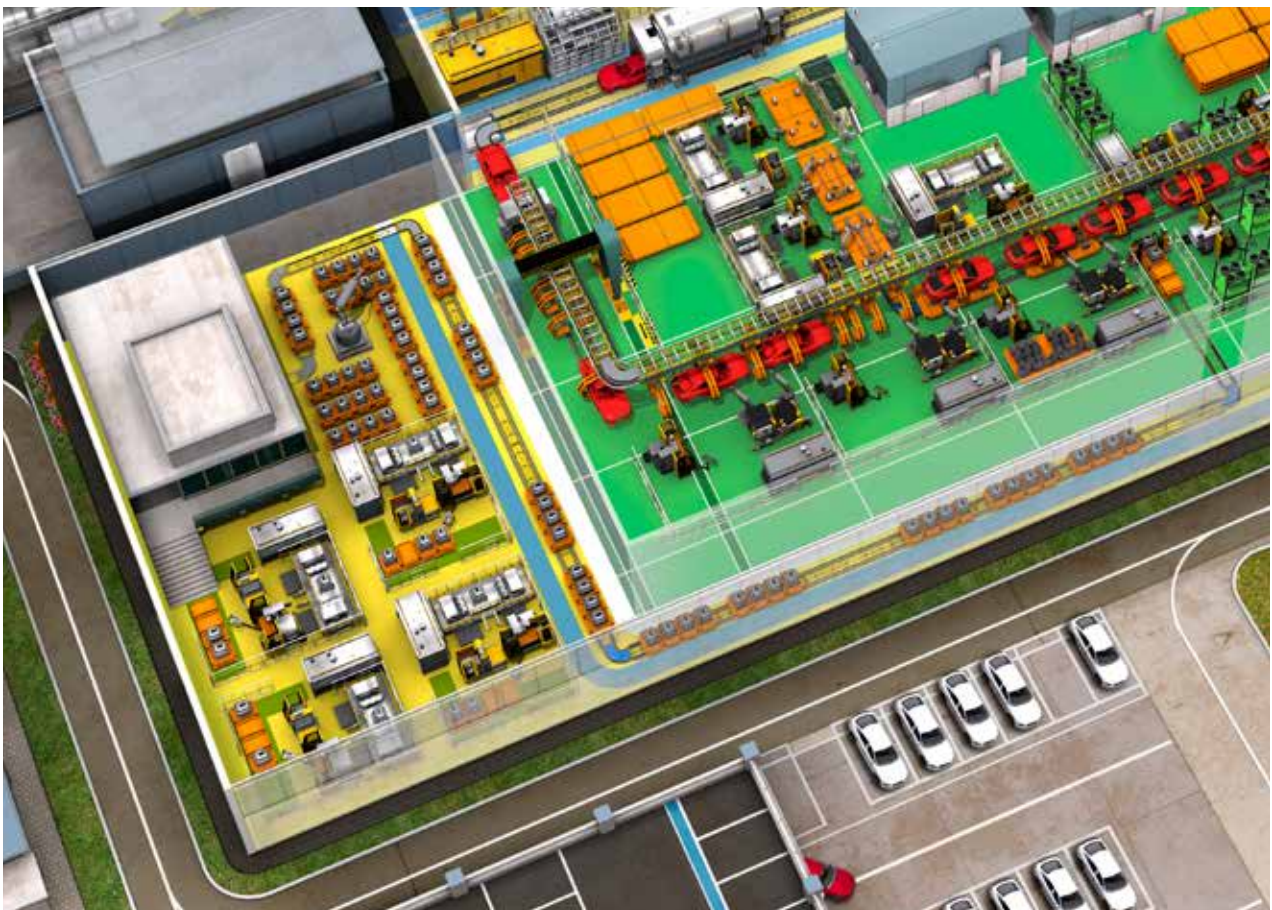



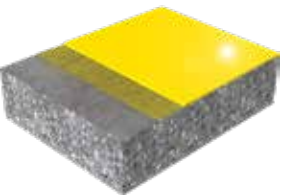
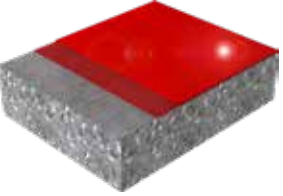
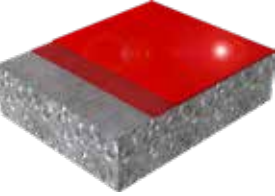




SYSTEM	Sikafloor® MultiDur ES-25 ESD	Sikafloor® MultiDur ES-24 ECF	Sikafloor® MultiDur ES-24	Sikafloor® MultiDur ET-14
				
DESCRIPTION	Smooth unicolor high performance ESD epoxy floor covering	Smooth unicolor conductive epoxy floor covering	Smooth unicolor epoxy floor covering	Textured unicolor epoxy roller coat
NOMINAL THICKNESS / LAYERS	~ 2 mm 3	~ 2 mm 3	2 – 3 mm 2	< 1 mm 2
CHARACTERISTICS	<ul style="list-style-type: none"> ■ Good wear and abrasion resistance ■ Good chemical resistance ■ Color options ■ Easy to clean ■ Conductive 	<ul style="list-style-type: none"> ■ High wear and abrasion resistance ■ Good chemical resistance ■ Color options ■ Easy to clean ■ Conductive 	<ul style="list-style-type: none"> ■ High wear and abrasion resistance ■ Good impact resistance ■ Good chemical resistance ■ Medium thermal shock resistance ■ Easy cleaning ■ Color options 	<ul style="list-style-type: none"> ■ Good wear and abrasion resistance ■ Good chemical resistance ■ Slip resistant ■ Easy cleaning ■ Color options
SYSTEM COMPONENTS	<ul style="list-style-type: none"> ■ Sikafloor®-156 or -161 or -160 ■ Sikafloor®-220 W Conductive ■ Sikafloor®-235 ESD 	<ul style="list-style-type: none"> ■ Sikafloor®-156 or -161 or -160 ■ Sikafloor®-220 W Conductive ■ Sikafloor®-262 AS N 	<ul style="list-style-type: none"> ■ Sikafloor®-156 or -161 or -160 ■ Sikafloor®-263 SL 	<ul style="list-style-type: none"> ■ Sikafloor®-156 or -161 or -160 ■ Sikafloor®-264 Thixo
				

Sikafloor® SYSTEMS IN LOGISTICS AREAS

The automotive manufacturing process requires massive, continuous transportation of various types of materials to the whole assembly line. Effective logistics is essential for the whole production process to ensure that the right material is transported to the right place at the right time and that the

operations flow smoothly. A number of different Sikafloor® industrial flooring systems fulfil the requirements for functionality and high durability in logistics areas.



SYSTEM	Sikafloor® HardTop	Sikafloor® PurCem® HS-26 Gloss	Sikafloor® MultiDur ES-24	Sikafloor® MultiDur ES-14
				
DESCRIPTION	Tough monolithic finish for concrete floors	Medium duty, gloss and smooth finish, polyurethane cement hybrid flooring system.	Smooth unicolor epoxy floor covering	Unicolor epoxy roller coat
NOMINAL THICKNESS / LAYERS	2.5 - 3 mm 1 - 2	1,5 - 3 mm 2	2 - 3 mm 2	< 1 mm 2
CHARACTERISTICS	<ul style="list-style-type: none"> ■ Tough and durable ■ Very good abrasion resistance ■ Very good impact resistance ■ Color options 	<ul style="list-style-type: none"> ■ High mechanical resistance ■ Good chemical resistance ■ Glossy and scratch resistance surface ■ Extremely low dirt pick up ■ Easy clean and maintain ■ Non-tainting, odorless during application ■ VOC free and environmental friendly ■ Tolerant to moisture in the substrate ■ Very good life cycle cost performance ■ Color options 	<ul style="list-style-type: none"> ■ High wear and abrasion resistance ■ Good impact resistance ■ Good chemical resistance ■ Medium thermal shock resistance ■ Easy cleaning ■ Color options 	<ul style="list-style-type: none"> ■ Good wear and abrasion resistance ■ Good chemical resistance ■ Easy to clean ■ Color options
SYSTEM COMPONENTS	<ul style="list-style-type: none"> ■ Sikament® or Sika® ViscoCrete® slab ■ Sikafloor®-2 SynTop ■ Sikafloor® ProSeal W / ProSeal-22 	<ul style="list-style-type: none"> ■ Sikafloor® -21/-24/-210/-260 ■ Sikafloor®-260 PurCem® 	<ul style="list-style-type: none"> ■ Sikafloor®-156 or -161 or -160 ■ Sikafloor®-263 SL 	<ul style="list-style-type: none"> ■ Sikafloor®-156 or -161 or -160 ■ Sikafloor®-264
				

Sikafloor® SYSTEMS IN OFFICES AND UTILITIES



Offices and Utilities

In addition to production assembly line, there are also some other rooms and areas in automotive manufacturing plants. These facilities comprise offices for engineering and accounting, laboratories, meeting rooms, social rooms, cafeteria, kitchen, car show room and even a carpark. The requirements for a flooring solution vary respectively: in offices and meeting rooms comfort and resilience are required; car show rooms and reception areas prefer aesthetic design and attractive appearance. Seamless and decorative Sikafloor® DecoDur, Sika® ComfortFloor or Sikafloor® MultiFlex solutions provide a large selection of design opportunities for all such adjacent areas in car manufacturing plants.



All the above mentioned systems can be found at:



FLOORING
SIKA TECHNOLOGY AND
CONCEPTS FOR FLOORING
AND COATING





BASEMENT-TO-ROOF SOLUTIONS FOR THE AUTOMOTIVE INDUSTRY

As a partner to the automotive industry, Sika plays an important role in the industry's all operation processes and facilities worldwide. Beside flooring solutions, Sika supplies also solutions for:

- Concrete production
- Roofing
- Steel structure protection
- Fire protection
- Waterproofing
- Grouting and fixing
- Structural strengthening
- Concrete repair and protection
- Sealing and elastic bonding
- Interior finishing



Roofing



Structural strengthening



Steel structure protection and fire protection



Concrete repair and protection



Waterproofing



Concrete production

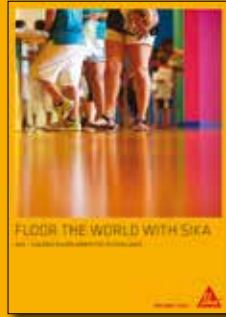


Joint Sealing



Grouting and fixing

ALSO AVAILABLE FROM SIKA



FOR MORE FLOORING AND COATING INFORMATION:



WE ARE SIKA

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.

Our most current General Sales Conditions shall apply. Please consult the most current local Product Data Sheet prior to any use.



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