KLB KÖTZTAL

Coatings for multi-storey car parks and underground parking garages

KLB surface protection systems

slip-resistant

surface protection

System checked

High road safety for pedestrians and vehicles

Slip-resistant coating systems are indispensable in car parks of all kinds in order to meet the highest safety requirements. They must provide reliable grip even on wet or soiled floors – whether during vehicle acceleration or braking. This is especially critical in high-risk areas such as access roads, ramps and entrances. Pedestrians also benefit from the anti-slip surface: it offers secure footing, reduces the risk of slipping and enhances the overall user experience within the car park.

Effective protection of buildings

The main task of a surface protection system is to protect the building fabric from chemical or mechanical influences. Chemical substances, such as de-icing salts dissolved in water or carbon dioxide in the air, can penetrate cracks in the concrete and damage the reinforcement. This process weakens the substrate and can compromise the building's load-bearing capacity. KLB surface protection systems offer targeted protection against these damaging influences and effectively prevent costly repairs.

Performance that has been tested and confirmed

KLB surface protection systems stand for outstanding performance and long-term reliability. When using KLB coatings, one can rely on a high level of quality: our systems undergo rigorous in-house quality control and are also independently tested by renowned institutes in accordance with DIN EN 1504-2 and the TR maintenance directive – ensuring documented safety in structural protection.

KLB KÖTZTAL

Content

Edition 06/2025

SURFACE PROTECTION SYSTEMS

KLB systems for the protection and maintenance of concrete components

KLB-SYSTEM	OS system*	Features and application areas	Layer thickness**	Why choose the KLB system?
System K1 **KLB PARKING EP OS8**	**OS 8** (Rigid system)	Rigid coating for chemically and mechanically highly stressed surfaces that are accessible to vehicle traffic in the interior, e.g. roadways, parking areas, spindles and ramps	At least 2.5mm	Robust standard system, proven for indoor use.
System K2 **KLB PARKING PU OS11a**	**OS 11a**	Coating with increased dynamic crack-bridging capability for indoor or outdoor surfaces that are accessible to foot and vehicle traffic. Use on chemically and mechanically highly stressed concrete surfaces with a risk of crack formation in the interior and exterior, including a very elastic floating layer, e.g. on weather-exposed open decks, indoor parking areas, bridge caps/paths	At least 4.5mm	For the interior and exterior, especially for open decks, UV-stable, elastic and dynamically crack-bridging
System K3 **KLB PARKING PU OS11b**	**OS 11b**	Coating with increased dynamic crack-bridging capability for indoor surfaces that are accessible to foot and vehicle traffic. Use on chemically and mechanically highly stressed concrete surfaces, including an elastic wearing layer, e.g. on intermediate decks, roofed open decks	At least 4.0 mm	For the interior, especially intermediate decks, with a high dynamic crack-bridging capability
System K4 **KLB PARKING PU OS14**	**OS 14**	Highly wear-resistant coating with increased dynamic crack-bridging capability for indoor or outdoor surfaces that are accessible to foot and vehicle traffic. Use on chemically and mechanically highly stressed concrete surfaces with a risk of crack formation, including a very elastic floating layer, e.g. on weather-exposed open decks, indoor and outdoor parking areas	At least 6.0mm	For the interior and exterior, weather-exposed open decks, maximum crack bridging, for extreme conditions
System K5 **KLB PARKING EP OS8 Economic**	**OS 8** (Two-layered EP system)	Rigid coating for chemically and mechanically highly stressed surfaces that are accessible to vehicle traffic in the interior, e.g. roadways, parking areas, spindles and ramps	At least 2.5mm	Economical and time-saving, sustainable EP-System
System K6 **KLB PARKING PU OS8 Flex**	**OS 8** (Flexibilised PU-System)	Flexibilised coating for chemically and mechanically highly stressed surfaces that are accessible to vehicle traffic in the interior, e.g. roadways, parking areas, spindles and ramps	At least 4.0mm	Static crack-bridging according to DIN EN ISO 1062-7 Class A3 0.5 mm at -10 °C / -14 °F, elastic PU-based system
System K7 **KLB PARKING EP OS8 Flex**	**OS 8** (Flexibilised EP-System)	Flexibilised coating with high static and dynamic crack-bridging for chemically and mechanically highly stressed surfaces that are accessible to vehicle traffic in the interior, e.g. driveways, roadways, parking areas, floor slabs in contact with the ground and rear-side moisture	At least 2.5mm	Permeable, static crack-bridging according to DIN EN ISO 1062-7 Class A3 0.6 mm at -10 °C / -14 °F, dynamic crack-bridging according to DIN EN ISO 1062-7 Class B1 at 0 °C / 32 °F, low-VOC, wear-resistant (PAT test wear class VK1)
System K8 **KLB PARKING OS5b Wall**	**OS 5b**	Elastified, statically and dynamically crack-bridging coating for vertical surfaces, developed for special protection of the building fabric, for indoor and outdoor use, e.g. walls, skirting, plinths	At least 2.0mm (in cured state)	For vertical surfaces, elastic, CO_2-tight, excellent workability due to stable consistency, resistant to frost and de-icing salt

* In accordance with TR maintenance directive
** If necessary, plus roughness depth surcharge according to the maintenance guideline

1.

Requirements to surface protection systems

Special systems for reliably protecting parking structures

Multi-storey car parks and underground garages are exposed to intense mechanical, chemical and thermal stress on a daily basis. Constant vehicle movement causes vibrations and micro-oscillations that strain the entire structure. At the same time, cars bring in moisture, de-icing salts, and chemical contaminants such as oil and antifreeze. This combination places extreme demands on the durability of the flooring systems used.

Without a suitable protective coating, these influences can attack the concrete and reinforcement, threatening the long-term load-bearing capacity of the structure. KLB surface protection systems are specially developed to meet the specific challenges of parking areas. Their performance properties ensure durable and reliable protection of the building fabric – even under the harshest conditions.

Some of the most dangerous risks to structural safety remain hidden to the eye. Even hairline cracks can allow chloride-containing moisture to penetrate the concrete. And the wider the crack, the faster the chlorides reach the reinforcement. Current research and practical findings show: such open cracks combined with high moisture levels significantly accelerate deep chloride ingress.

At the same time, carbon dioxide (CO_2) from the air leads to the carbonation of concrete. This reduces the alkalinity in the pore structure, destroying the passivation layer that protects the steel reinforcement – increasing the risk of corrosion.

However, with tested KLB surface protection systems, the load-bearing elements can be very well protected from these stresses. They offer more than just chemical and mechanical resistance: they also feature robust, slip-resistant surfaces that improve driving safety and reduce the risk of accidents, even when floors are wet or dirty.

All systems undergo continuous quality assurance at our production facilities and are regularly tested by external institutes. Certification is carried out according to DIN EN 1504-2 in consideration of DIN V 18026, “Surface protection systems for concrete from products according to DIN EN 1504-2” and the Technical Rule for the maintenance of concrete buildings (German TR Instandhaltung 2020).

KLB system primers are also tested for rear-side moisture exposure, making them suitable for use on damp substrates, young concrete, or floor slabs in contact with the soil – for maximum safety even in challenging installation scenarios.

A SOLID BASE FOR PARKING AREAS

Surface protection system OS 8 for surfaces in multi-storey car parks and underground parking garages

2.

Protection of driveways and spindles in multi-storey and underground parking

KLB PARKING EP OS8

In underground and multi-storey car parks, interior floor slabs often form the load-bearing base for the levels above. These structural components are typically in contact with the ground and must withstand a variety of stresses, from constant traffic loads to moisture and chemical substances such as oil, fuels and de-icing salts. To ensure the long-term integrity of these areas, a reliable and robust surface protection is essential.

System K1 KLB PARKING EP OS8 was specifically developed for this purpose and has been tested in accordance with the DAfStb guidelines, thus meeting the criteria of TR maintenance. As a classic OS 8 system based on epoxy resin, it offers a rigid and wear-resistant protective layer with excellent chemical and mechanical resistance. Its slip-resistant texture (R11) ensures safe trafficability, even in wet or dirty conditions.

The system primer protects against moisture penetration from the rear and allows application on damp substrates or young concrete structures – this means maximum safety during installation.

The system is ideal for floor slabs in contact with the ground in areas with no significant dynamic crack movements. Since thermal expansion is limited in these environments, it is also low-maintenance. However, regular inspections as part of a maintenance plan are strongly recommended. This ensures that early-stage cracks can be detected and repaired promptly, safeguarding structural integrity.

System K1
KLB PARKING EP OS8

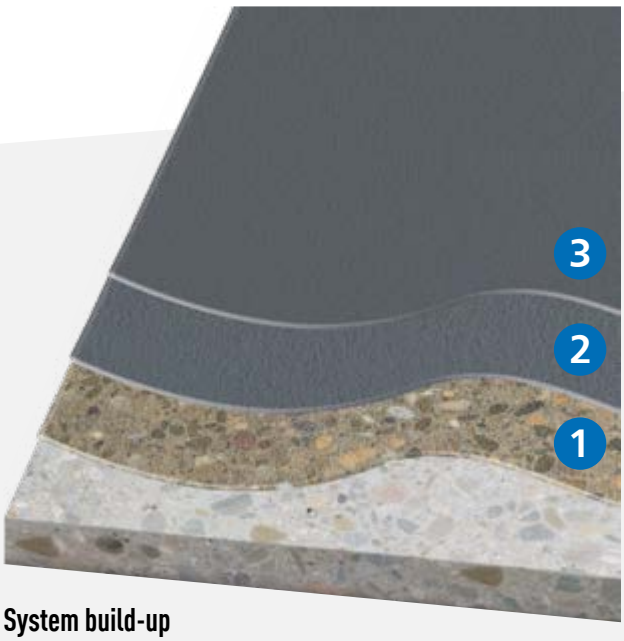
Surface protection system in accordance with TR maintenance directive

System features

- slip-resistant, slightly non-slip surface
- wear-resistant
- reduction of water absorption
- protection against chemicals (chloride, oil, fuel, road salt) and carbonation
- improvement of frost and de-icing salt resistance
- tested against rear moisture exposure
- hardly inflammable B_{fl}-s1 (DIN EN 13501-1)

Colour: Available in a wide range of colours
Surface: Glossy, slip-resistant in R11

For more information on this system, see:
www.klb-koetztal.de/en/systems/system-k1/



System build-up

3. Top sealer
   KLB-SYSTEM EPOXID EP 216 Universal
2. Top coat
   KLB-SYSTEM EPOXID EP 216 Universal, fully scattered with quartz sand **KLB-Quarzsand 0.3/0.8 mm**
1. Primer with **KLB-SYSTEM EPOXID EP 5520,** openly scattered with quartz sand **KLB-Quarzsand 0.3/0.8 mm**
   as alternative to **EP 5520**: **KLB-SYSTEM EPOXID EP 5530**

RELIABLE, EVEN ON SLOPES

Slip-resistant surface protection system OS 8
for driveways, spindles and ramps

3.

Robust coating for driveways and spindles

KLB PARKING EP OS8

Driveways, spindles and access ramps in car parks are subject to some of the highest mechanical loads: frequent braking, acceleration and tight maneuvering generate intense shear and thrust forces, that act directly on the surface. This is exactly where **System K1 KLB PARKING EP OS8** truly excels.

As an OS 8-certified epoxy resin, it provides a durable, wear-resistant surface capable of withstanding point loads with ease. Its integrated slip resistance (R11) ensures reliable traction, even in wet or soiled conditions – a critical safety factor, especially on sloped areas.

For ramps exposed to high traffic, it is possible to adjust the system to individual requirements (see note in the build-up). By applying an additional layer before the top sealer, the system's mechanical load capacity can be significantly increased. This not only protects the surface, but also offers lasting protection to the underlying structure.

Thanks to its robust composition and proven performance, **System K1 i**s the dependable choice for all inclined areas in car parks – from the entrance zones to spindles.

System K1
KLB PARKING EP OS8

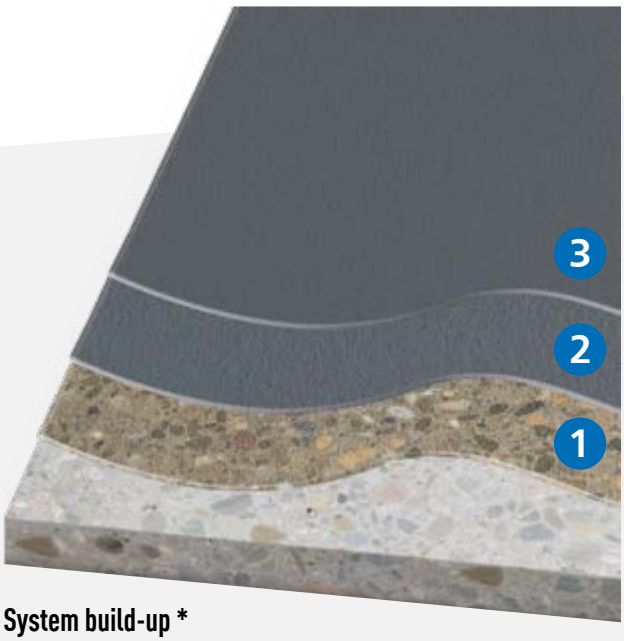
Surface protection system in accordance with TR maintenance directive

System features

- slip-resistant, slightly non-slip surface
- resistant to wear, high shear, braking and starting forces
- reduction of water absorption
- protection against chemicals (chloride, oil, fuel, road salt and carbonation)
- improvement of frost and de-icing salt resistance
- tested against rear moisture exposure
- hardly inflammable B_{fl}-s1 (DIN EN 13501-1)

Colour: Available in a wide range of colours
Surface: Glossy, slip-resistant in R11

For more information on this system, see:
www.klb-koetztal.de/en/systems/system-k1/



System build-up *

3. Top sealer
   KLB-SYSTEM EPOXID EP 216 Universal
   Recommendation for ramps / driveways: Analogous to **2.** Additional layer **EP 216 Universal,** filled with **KLB quartz sand,** fully scattered with **KLB-Quarzsand 0.3/0.8 mm**

2. Top coat with **KLB-SYSTEM EPOXID EP 216 Universal,** filled with quartz sand or suspending agent for ramps, fully scattered with quartz sand **KLB-Quarzsand 0.3/ 0.8 mm**
   alternatively, depending on the slope, full scattering can be done with NQS 0.7/1.2 mm, high-grade corundum or silicium

1. Primer with **KLB-SYSTEM EPOXID EP 5520,** openly scattered with quartz sand **KLB-Quarzsand 0.3/0.8 mm**
   as alternative to EP 5520: **KLB-SYSTEM EPOXID EP 5530**

*** Please seek technical advice for spindles, ramps, etc.**

TWO-LAYER SYSTEM AS AN ALTERNATIVE

Economic surface protection system OS 8
using only one product

4.

Reliability meets economic efficiency

KLB PARKING EP OS8 Economic

When both reliability and cost-effectiveness are key priorities, **System K5 KLB PARKING EP OS8 Economic** offers the ideal balance. As a variant of the conventional OS 8 system build-up, this two-layer solution is designed for maximum efficiency: primer and wear coat are applied in a single step using only one epoxy resin product, **KLB-SYSTEM EPOXID EP 216 Universal.**

This smart combination of priming filler and wearing layer reduces both material consumption and on-site logistics. There is no need for a separate primer or intermediate curing, which streamlines the application process and significantly reduces the overall construction time.

Despite its simplified build-up, the system complies with the performance requirements for OS 8 surface protection systems in accordance with the TR maintenance (Technical Rule for Maintenance). A minimum layer thickness of 2.5 mm plus roughness compensation ensures the necessary structural protection. The full-surface quartz sand scattering guarantees the required slip resistance (R11).

System K5 is suitable for the same areas as the classic **System K1**: on floor slabs, wherever mechanical loads, moisture and chemical exposure must be managed safely and reliably.

System K5
KLB PARKING EP OS8 Economic

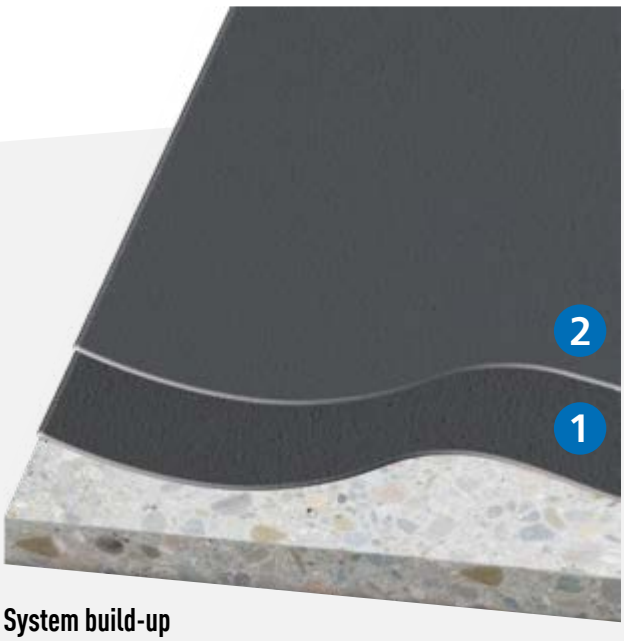
Surface protection system in accordance with TR maintenance directive

System features

- economical with low material input, ideal for large areas
- slip-resistant, slightly non-slip surface
- wear-resistant
- reduction of water absorption
- protection against chemicals (chloride, oil, fuel, road salt) and carbonation
- improvement of frost and de-icing salt resistance
- hardly inflammable B_{fl}-s1 (DIN EN 13501-1)

Minimum layer thickness: > 2.5 mm plus surcharge for roughness depth
Colour: Available in a wide range of colours
Surface: Glossy, slip-resistant in R11

For more information on this system, see:
www.klb-koetztal.de/en/systems/system-k5/



System build-up

2. Top sealer
   KLB-SYSTEM EPOXID EP 216 Universal
1. Priming coat and wearing layer with **KLB-SYSTEM EPOXID EP 216 Universal**, fully scattered with quartz sand **KLB-Quarzsand 0.3/ 0.8 mm**

5.

Flexibilised polyurethane resin system with static crack-bridging

KLB PARKING PU OS8 Flex

When an OS 8 coating with static crack-bridging properties is required, **System K6 KLB PARKING PU OS8 Flex** offers a proven, high-performance solution based on flexibilised polyurethane. The elastic wearing layer **KLB-SYSTEM POLYURETHAN PU 5560** bridges cracks of 0.5 mm at -10 °C / 14 °F, ensuring reliable protection against the ingress of water and chemicals.

The system is particularly suitable for interior floor slabs where water vapour permeability is not required. With its closed structure, **System K6** stands out for its durability, elasticity and the option of using an alternative light-stable top sealer **KLB-SYSTEM EPOXID EP 5570**, in addition to the standard top sealer **KLB-SYSTEM POLYUREA PU 5580**, which is colour-stable even under UV exposure.

Important planning note:
System K6 is not vapour-permeable and must therefore only be used on dry substrates that are prone to cracking.

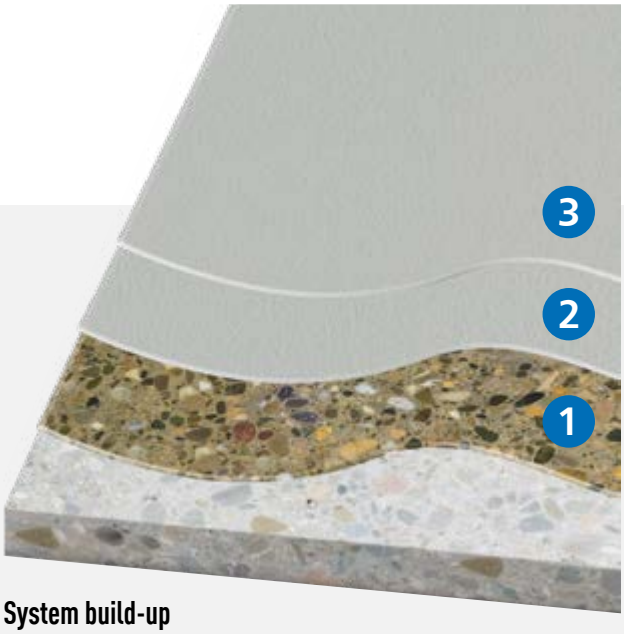
System K6
KLB PARKING PU OS8 Flex

Statically crack-bridging surface protection system in accordance with TR maintenance directive

System features
- slip-resistant, robust, slightly non-slip surface
- high elasticity
- protection against chemicals (chloride, oil, fuel, road salt) and carbonation
- improvement of frost and de-icing salt resistance
- static crack-bridging according to DIN EN ISO 1062-7 Class A3 (up to 0.5 mm at -10 °C / -14 °F)
- hardly inflammable B_{fl}-s1 (DIN EN 13501-1)

Minimum layer thickness: > 4 mm plus surcharge for roughness depth
Colour: Available in a wide range of colours
Surface: Glossy, slip-resistant in R11

For more information on this system, see:
www.klb-koetztal.de/en/systems/system-k6/



System build-up

3. Top sealer
   KLB-SYSTEM EPOXID EP 5570
   alternatively: light-stable **KLB-SYSTEM POLYUREA PU 5580**
2. Flexible wearing layer with
   KLB-SYSTEM POLYURETHAN PU 5560,
   fully scattered with quartz sand
   KLB-Quarzsand 0.3/0.8 mm
1. Primer
   KLB-SYSTEM EPOXID EP 5520,
   openly scattered with quartz sand
   KLB-Quarzsand 0.3/0.8 mm

6.

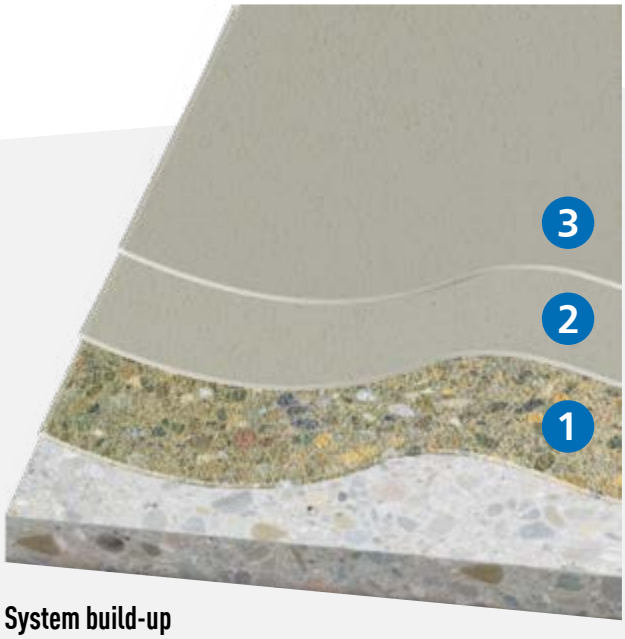
Permeable epoxy resin system with static and dynamic crack-bridging

KLB PARKING EP OS8 Flex

System K7 KLB PARKING EP OS8 Flex combines multiple technical advantages in a single, innovative build-up – setting new benchmarks within the OS class. This low-VOC system achieves static crack-bridging of >0.6 mm at -10 °C / 14 °F (Class A3 according to DIN EN 1062-7) along with dynamic crack-bridging of Class B1 at 0°C / 32 °F – a unique feature among epoxy-based OS 8 systems. At the same time, the system is water vapour-permeable (Class II according to DIN EN ISO 7783), making it ideal for damp substrates or even for young concrete surfaces.

The coordinated system structure effectively prevents osmosis blistering and allows residual moisture to dissipate safely. This makes **System K7** particularly suitable for interior floor slabs, waterproof constructions or floor slabs in contact with the ground. The flexibilised EP layer provides excellent mechanical resilience, specially designed to withstand the typical stresses found in car park environments. Its performance is especially evident in areas exposed to high point loads and dynamic movement. During parking, braking, steering or acceleration, complex rotational and shear forces impact the surface – and this is precisely where **System K7** delivers, proven by its wear classification VK1 from the PAT test (Parking Abrasion Test).

Thanks to its unique combination of mechanical strength, crack-bridging capability, vapour permeability and low-VOC formulation, **System K7** is a future-oriented solution for renovations and new buildings – especially where tight deadlines, substrate moisture or increased dynamic loads play a role.



System build-up

3. Top sealer
   KLB-SYSTEM EPOXID EP 5570
2. Flexible wearing layer with
   KLB-SYSTEM EPOXID EP 5590,
   fully scattered with quartz sand
   KLB-Quarzsand 0.3/0.8 mm
1. Primer
   KLB-SYSTEM EPOXID EP 5520,
   openly scattered with quartz sand
   KLB-Quarzsand 0.3/0.8 mm

System K7
KLB PARKING EP OS8 Flex

Statically crack-bridging surface protection system in accordance with TR maintenance directive

System features

- wear class tested with PAT test (Parking Abrasion Test): VK1
- water vapour-permeable according to DIN EN ISO 7783-1 and -2: Class II
- protection against chemicals (chloride, oil, fuel, road salt) and carbonation
- static crack-bridging according to DIN EN ISO 1062-7 Class A3 (up to 0.6 mm at -10 °C / -14 °F)
- dynamic crack-bridging of Class B1 (according to DIN EN 1062-7) at 0 °C / 32 °F
- hardly inflammable B_{fl}-s1 (DIN EN 13501-1)

Minimum layer thickness: > 2.5 mm plus surcharge for roughness depth
Colour: Available in a wide range of colours
Surface: Glossy, slip-resistant in R11

For more information on this system, see:
www.klb-koetztal.de/en/systems/system-k7/

DURABILITY ACROSS EVERY LEVEL

Surface protection system OS 11b, dynamically crack-bridging for intermediate decks and roofed open decks

7.

OS system for intermediate decks and roofed open decks

KLB PARKING PU OS 11b

Intermediate decks in multi-storey car parks serve a dual function: they form the ceiling of one level and the roadway of the next. These structural elements face particularly high demands – they must withstand varying mechanical loads from vehicle traffic and continuous temperature fluctuations caused by both external and internal influences.

Over time, this combination frequently results in cracking within the building, with crack widths and movements changing dynamically. Without a tailored surface protection system, water, de-icing salts, and chemical substances can penetrate and cause long-term damage to the structural fabric. **System K3 KLB PARKING PU OS11b** is designed to meet exactly these requirements. It offers tested dynamic crack-bridging of 0.3 mm at -20 °C / -4 °F (Class II T_V) and permanently protects the building against the ingress of harmful substances. The elastic wearing and sealing layer **KLB-SYSTEM POLYURETHAN PU 5550** delivers high mechanical resilience and durability, while remaining flexible enough to accommodate recurring movement and thermal expansion.

Another strong quality indicator: the system is classified in the highest wear class VK1 according to the PAT test (Parking Abrasion Test). This confirms its outstanding abrasion resistance, even under point loads or starting and braking forces, such as those encountered during maneuvering or cornering on intermediate decks.

System K3
KLB PARKING PU OS11b

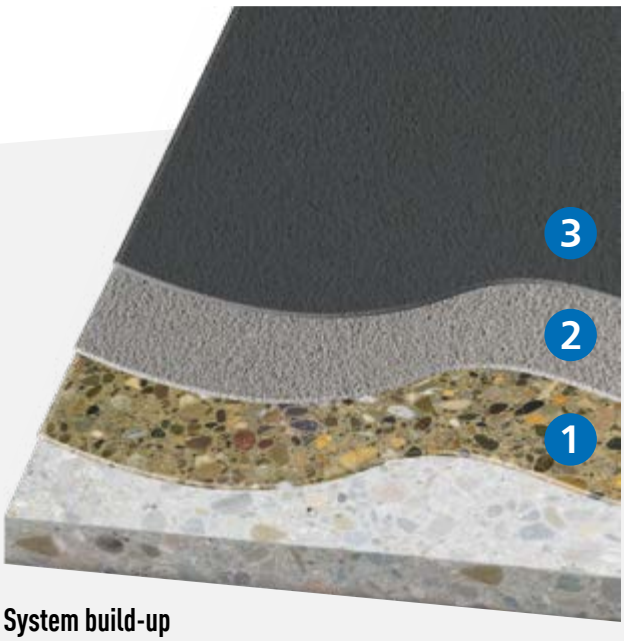
Crack-bridging surface protection system
in accordance with TR maintenance directive

System features

- wear-resistant: Wear class tested with PAT test: VK1
- dynamic crack-bridging
  (up to 0.3 mm at -20 °C / -4 °F, Class II T_V)
- slip-resistant, slightly non-slip surface
- reduction of water absorption
- protection against chemicals (chloride, oil, fuel, road salt) and carbonation
- improvement of frost and de-icing salt resistance
- tested against rear moisture exposure
- hardly inflammable B_{fl}-s1 (DIN EN 13501-1)

Minimum layer thickness: > 4.0 mm plus surcharge for roughness depth
Colour: Available in a wide range of colours
Surface: Glossy, slip-resistant in R10 or R11

For more information on this system, see:
www.klb-koetztal.de/en/systems/system-k3/



System build-up

3. Top sealer **KLB-SYSTEM EPOXID EP 5570**
   alternatively: light-stable **KLB-SYSTEM POLYUREA PU 5580**
2. Elastic wearing and waterproofing layer **KLB-SYSTEM POLYURETHAN PU 5550**, fully scattered with quartz sand **KLB-Quarzsand 0.3/0.8 mm**
1. Primer with **KLB-SYSTEM EPOXID EP 5520**, openly scattered with quartz sand **KLB-Quarzsand 0.3/0.8 mm**
   as alternative to EP 5520: KLB-SYSTEM EPOXID EP 5530

ROBUST, IN ANY WEATHER

Slip-resistant surface protection system OS 11a
for weather-exposed parking lots

8.

Weatherproof and UV-stable for weather-exposed parking surfaces

KLB PARKING PU OS11a

Open parking decks are exposed to weather conditions all year round: sun, rain, snow and ice alternate – often accompanied by abrupt temperature shifts – for example, when a sun-heated surface cools rapidly after a summer storm. In addition to this, mechanical stresses from vehicles and foot traffic affect every part of the car park.

System K2 KLB PARKING PU OS11a offers an all-in-one solution for exactly these demanding situations. The elastic intermediate layer protects the reinforced concrete against water ingress and chloride-containing substances such as de-icing salts or fuels. It reliably bridges dynamic crack movements up to 0.3 mm at -20 °C / -4 °F, Class II T_V. A key feature is the light-resistant top sealer: not only does it prevent against yellowing from UV exposure, but it also offers a wide range of colour – interesting for architects and planners aiming to combine safety with design.

The abrasion-resistant wearing layer and non-slip surface ensure both long-term durability and safe trafficability, even under heavy use and changing weather conditions.

System K2
KLB PARKING PU OS11a

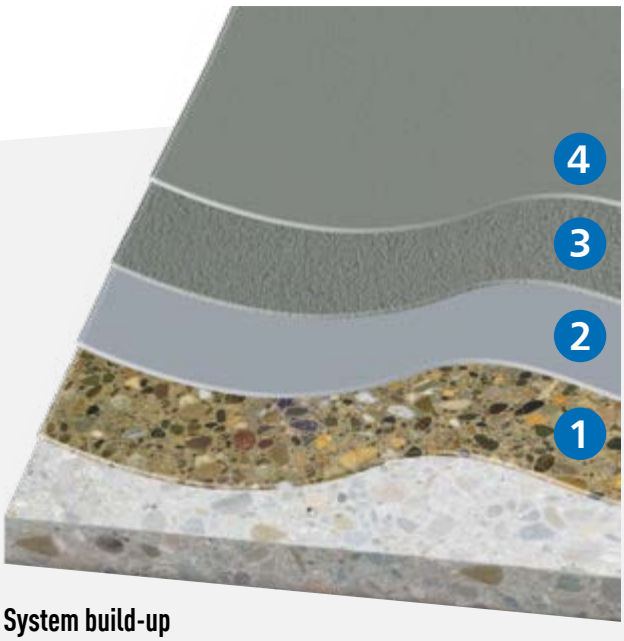
Crack-bridging surface protection system
in accordance with TR maintenance directive

System features

- wear-resistant
- dynamic crack-bridging
  (up to 0.3 mm at -20 °C / -4 °F, Class II T_V)
- slip-resistant, slightly non-slip surface
- weatherproof due to colour-stable top sealer
- reduction of water absorption
- protection against chemicals (chloride, oil, fuel, road salt) and carbonation
- improvement of frost and de-icing salt resistance
- hardly inflammable B_{fl}-s1 (DIN EN 13501-1)

Minimum layer thickness: > 4.5 mm plus surcharge for roughness depth
Colour: Available in a wide range of colours
Surface: Glossy, slip-resistant in R10 or R11

For more information on this system, see:
www.klb-koetztal.de/en/systems/system-k2/



System build-up

4. Top sealer
   KLB-SYSTEM POLYUREA PU 5580
3. Wearing layer with
   KLB-SYSTEM POLYURETHAN PU 5560,
   fully scattered with quartz sand **KLB-Quarzsand 0.3/0.8 mm**
2. Elastic intermediate layer with
   KLB-SYSTEM POLYURETHAN PU 5550
1. Primer with **KLB-SYSTEM EPOXID EP 5520**,
   openly scattered with quartz sand **KLB-Quarzsand 0.3/0.8 mm**
   as alternative to EP 5520: KLB-SYSTEM EPOXID EP 5530

A MAXIMUM OF SURFACE PROTECTION

Highly robust surface protection system OS 14
with increased crack-bridging ability

9.

For more safety and high crack-bridging

KLB PARKING PU OS14

Open parking decks are subject to intense environmental influences throughout the year, from UV radiation, rain, snow and ice to extreme temperature fluctuations. In addition, heavy mechanical loads from vehicle acceleration, braking, and steering forces directly affect the surface. **SYSTEM K4 – KLB PARKING PU OS14** has been specially developed to withstand these peak loads and offers significantly improved crack-bridging performance.

Its elastic, four-layer build-up achieves dynamic crack-bridging of class B4.2 (at -20 °C / -4 °F). This makes the **K4 system** ideal for applications requiring high movement absorption, such as large open decks or parking areas exposed to significant thermal expansion and heavy use.

The light-stable top sealer ensures long-term colour stability and enables creative design, which is perfect for highly visible parking zones. The non-slip and abrasion-resistant surface guarantees safe trafficability even in wet conditions, while the liquid-tight and chemical-resistant build-up reliably protects against de-icing salts, fuels and oils. This ensures lasting protection of the building structure.

System K4 is recommended for exposed parking decks or ramps as well as renovation projects with extensive cracking or new builds where maximum movement tolerance is required. The result: the highest level of safety and durability – even under the harshest climatic and mechanical conditions.

System K4
KLB PARKING PU OS14

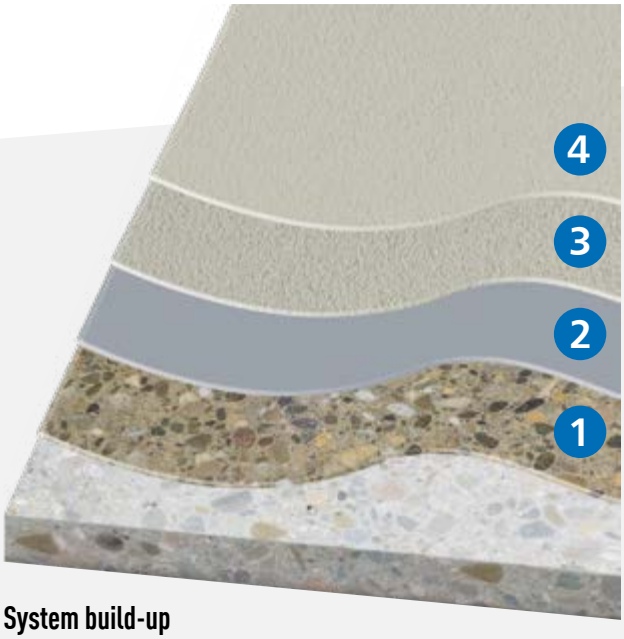
Surface protection system with increased crack-bridging in accordance with TR maintenance directive

System features

- highly wear-resistant
- high dynamic crack-bridging according to DIN EN 1062-7, Class B4.2 (at -20 °C / -4 °F)
- slip-resistant, slightly non-slip surface
- UV-stable top sealer
- reduction of water absorption
- protection against chemicals (chloride, oil, fuel, road salt) and carbonation
- improvement of frost and de-icing salt resistance
- hardly inflammable B_{fl}-s1 (DIN EN 13501-1)

Minimum layer thickness: > 6.0 mm plus surcharge for roughness depth
Colour: Available in a wide range of colours
Surface: Glossy, slip-resistant in R10 or R11

For more information on this system, see:
www.klb-koetztal.de/en/systems/system-k4/



System build-up

4. Top sealer
   KLB-SYSTEM POLYUREA PU 5580
3. Wearing layer with
   KLB-SYSTEM POLYURETHAN PU 5560, fully scattered with quartz sand **KLB-Quarzsand 0.3/0.8 mm**
2. Elastic intermediate layer with
   KLB-SYSTEM POLYURETHAN PU 5550
1. Primer with **KLB-SYSTEM EPOXID EP 5520**, openly scattered with quartz sand
   KLB-Quarzsand 0.3/0.8 mm
   as alternative to EP 5520: KLB-SYSTEM EPOXID EP 5530

STABLE FOR RISING COMPONENTS

Elasticised, statically and dynamically crack-bridging OS 5 system for walls, plinths and vertical surfaces

10.

Reliable building protection for vertical surfaces

KLB PARKING OS5b Wall

System K8 KLB PARKING OS5b Wall has been developed for special protection of vertical components, e.g. walls, skirting, supports, plinths and foundations beneath paved areas in multi-storey and underground car parks. These elements are particularly exposed to chemical stress, such as splash water from vehicles, de-icing salts, fuel residues, and weather-related effects like rain, snow and frost.

The elasticised and cold-flexible formulation of the polymer-modified **KLB-SYSTEM POLYMER EC 5610** makes the system particularly suited to temperature fluctuations. This means that it maintains its integrity even under changing temperatures, and offers reliable static and dynamic crack bridging down to -20 °C / -4 °F. Moisture, chemical substances and carbon dioxide cannot penetrate the building fabric, thus protecting the underlying reinforcement from corrosion.

Thanks to its stable consistency, the system is designed for precise and efficient vertical application: the multi-layer structure with scratch coat and subsequent coating layers ensures a homogeneous and liquid-tight barrier. For added durability and visual appeal, the system can be finished with a coloured top coat (**EC 5650**).

System K8 also ensures a seamless, dense connection between floor and wall coatings – an essential prerequisite for permanently protecting the building structure from external influences.

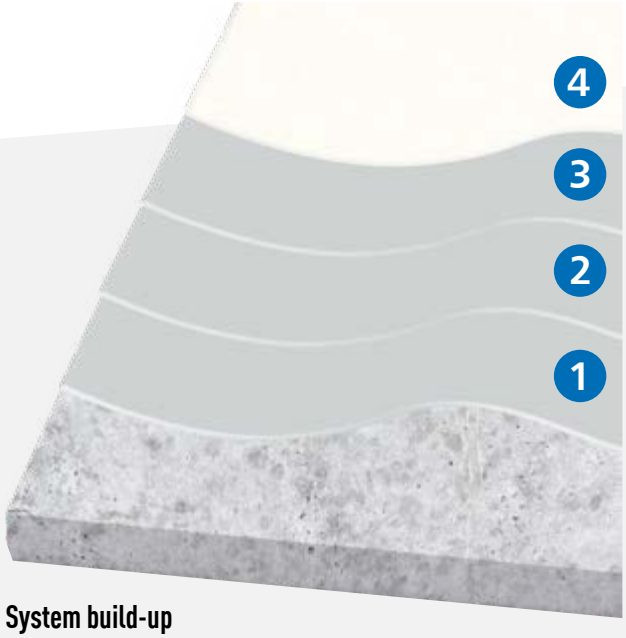
System K8
KLB PARKING PU OS5b Wall

Statically and dynamically crack-bridging surface protection system for vertical surfaces according to TR maintenance directive

System features
- stable consistency
- moisture-blocking and impervious to fluids
- protection against chemicals (chloride, oil, fuel, road salt)
- weather-resistant
- static and dynamic crack-bridging
- water vapour-permeable
- crack-bridging according to DIN EN ISO 1062-7 up -20 °C / -4 °F (Class B 4.2)

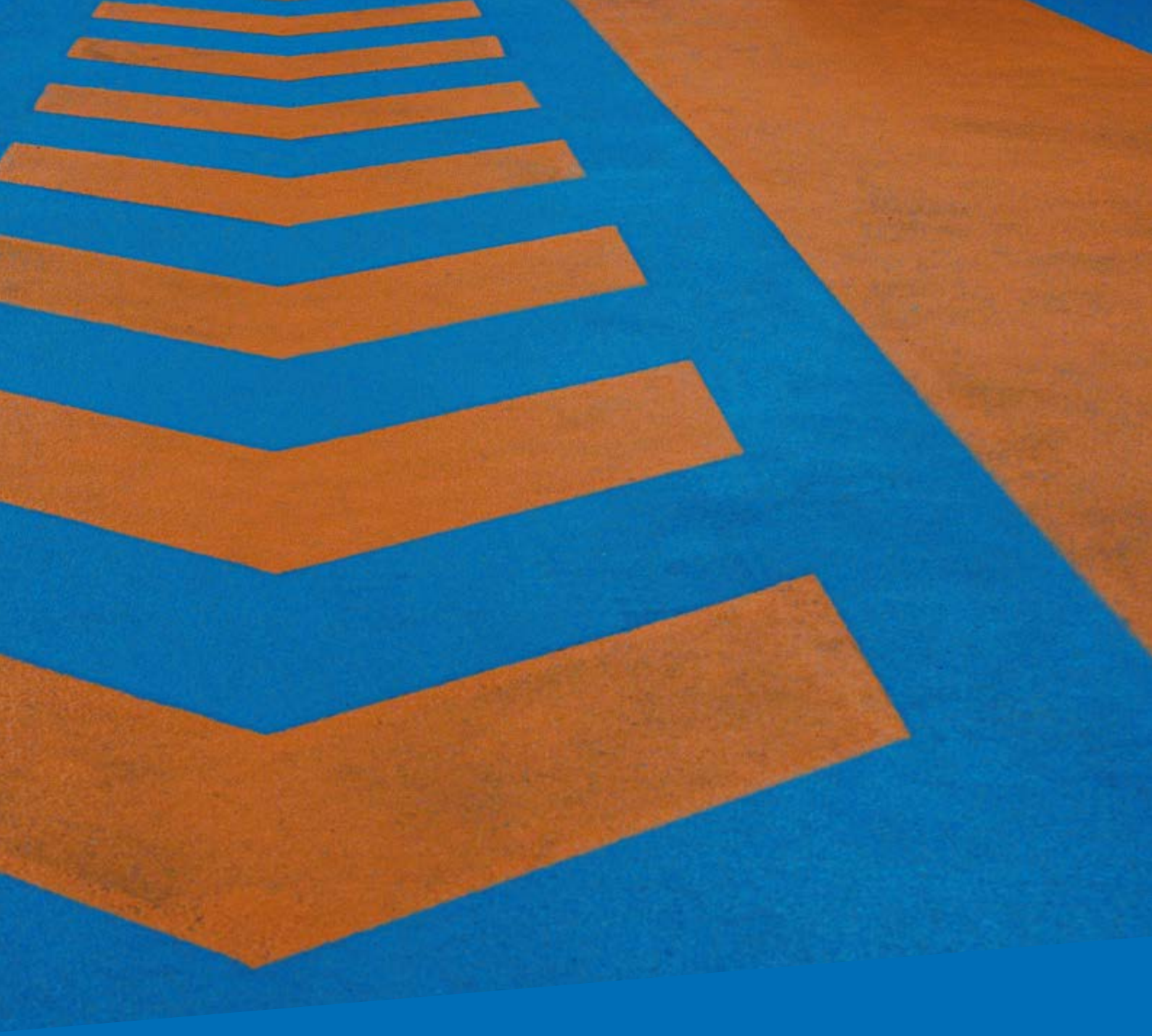
Minimum layer thickness: > 2 mm (in cured state) plus surcharge for roughness depth
Colour: Available in a wide range of colours
Surface: matt

For more information on this system, see:
www.klb-koetztal.de/en/systems/system-k8/



System build-up

4. Optional top sealer with PARKHAUS-Oberflächenschutzsystem **KLB-SYSTEM POLYMER EC 5650**, in two layers
3. Top coat **KLB-SYSTEM POLYMER EC 5610**
2. Top coat **KLB-SYSTEM POLYMER EC 5610**
1. Scratch coat with **KLB-SYSTEM POLYMER EC 5610**



COLOUR VARIETY FOR ALL AREAS

Colour concepts for orientation and safety in car parks

11.

Colour variety of the KLB surface protection systems

Design freedom for individual and safe car parks

Underground garages and multi-storey car parks are often the first point of contact for guests, visitors or customers when they arrive at the building. While these areas were traditionally designed for functionality, there is now a growing trend toward creating a more inviting, attractive and user-friendly environment. Brightly coloured walls and floors contribute to a welcoming atmosphere and give visitors a good feeling right from the start.

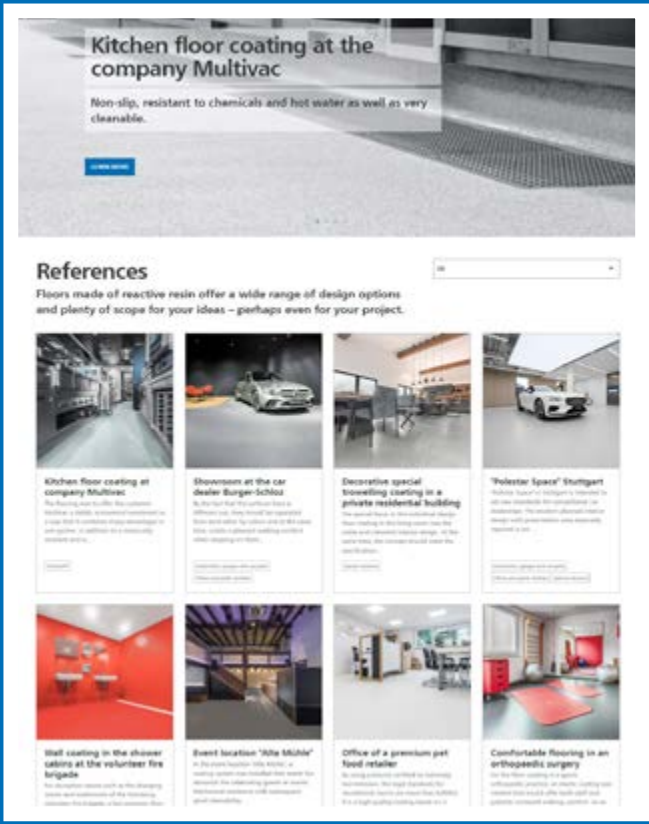
KLB OS systems enable the implementation of individual colour concepts – whether for floor level identification, marking of traffic lanes and walkways, or supporting wayfinding systems. This not only improves orientation, but also actively helps to prevent accidents between vehicles and pedestrians.
A consistent design in line with the corporate identity also offers companies the opportunity to seamlessly integrate the car park into their brand world, connecting with their customers from the very first moment and leaving a lasting impression.

Our consultants will be happy to provide personal advise on how to realise your car park project in a way that is both aesthetically appealing and functional – get in touch with us.

The systematic approach to great flooring.

You can find more systems, references and brochures on our website:

www.klb-koetztal.de/en/systemfinder



www.klb-koetztal.de/en/klb-references

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