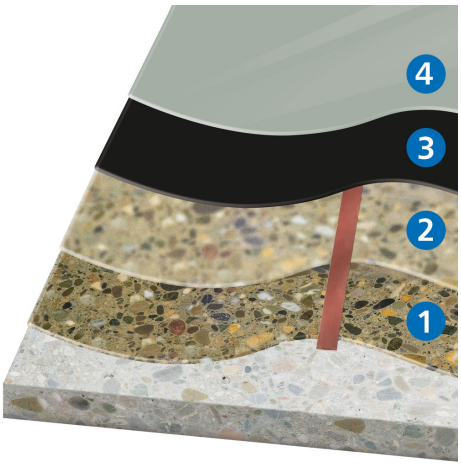
System F1
KLB CONDUCTIVE EP EX Standard

Smooth, electrical conductive epoxy resin coating with EX protection

The coating system F1 complies with all requirements on dissipative, smooth coatings for commercial or industrial applications that require an explosion (EX) protection.

The system is mainly used in areas where flammable substances are processed, e.g. in laboratories, chemical-technical production or storage facilities as well as in the sector of electronics and electrical engineering.

Alternative systems: System F3 for ESD requirements.



4. Top coat **KLB-SYSTEM EPOXID EP 200 EL+**
3. Conductive layer **KLB-SYSTEM EPOXID EP 799 Ableitgrund** with copper strip **KLB-Kupferband** attached underneath
2. Scratch coat with **KLB-SYSTEM EPOXID EP 50** and mixed sand **KLB-Mischsand 2/1**
1. Primer **KLB-SYSTEM EPOXID EP 50**

System build-up

Layer	See product information for more details
Total layer thickness	approx. 2.0 - 2.5 mm
Top coat (4)	**KLB-SYSTEM EPOXID EP 200 EL+**
Conductive layer (3)	**KLB-SYSTEM EPOXID EP 799 Ableitgrund**, with copper strip **KLB-Kupferband** attached underneath
Scratch coat (2)	**KLB-SYSTEM EPOXID EP 50*** with mixed sand **KLB-Mischsand 2/1**
Primer (1)	**KLB-SYSTEM EPOXID EP 50*** *alternatively, EP 52 Spezialgrund, EP 52 RAPID, etc. can be used
Substrate	Requirements to the substrate according to BEB worksheets and our primer list or by consultancy from our technical sales service/application technology

Area of application

Industry:

- Manufacturing and production
- Laboratory
- Storage and logistics
- Conductive floors (ESD)

Healthcare:

- Laboratory
- Pharmaceutical industry
- Clean room

Special solutions:

- Explosion protection coating (conductive)

Automotive, garages and car parks:

- Manufacturing and production

System features

- resistant to hot water up to 65 °C / 149 °F
- resistant to chemicals
- impervious to fluids
- resistant to industrial trucks
- resistant to mechanical load
- glossy
- smooth
- conductive (EX/personal protection)

Technical data

Bending tensile strength (EP 200 EL+)	27	N/mm²	DIN EN 196/1
Compressive strength (EP 200 EL+)	60	N/mm²	DIN EN 196/1
Shore-hardness D (EP 200 EL+)	80	-	DIN 53505 (after 7 days)
Abrasion (Taber Abraser) (EP 200 EL+)	50	mg	ASTM D4060 (CS10/1000)
Electrical resistance (EP 200 EL+)	(in combination with EP 799 Ableitgrund) approx. 10^6	Ohm	DIN EN 61340-4-1 DIN IEC 61340-5-1/2

The values established in tests are average values. Deviations from the product specification may occur.

Tests and certifications

The following external test certificates are available for the system:

- Slip-resistance according to DIN 51130 and BGR 181: grade R9 by injection of structured granulate **Strukturgranulat RQX 9**
- Declaration of performance in accordance with Annex III to Regulation (EU) No. 305/2011 (Construction Products Regulation)
- Declaration of product conformity with Environmental Product Declarations (EPD)

Please consider the latest version of this system information on our website.

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