



## **NQS 4700 AS – the economic alternative to silicium carbide**

Dissipative natural quartz sand NQS 4700 AS  
for slip-resistant EL+ systems



## For plain-coloured, electrically conductive coatings

**NQS 4700 AS** is suitable for use in combination with the coating systems **EP 99 EL+** or **EP 785 EL+** to produce single-coloured, electrically conductive floorings. This enables the coatings to have an increased slip resistance. The protection of persons and buildings in potentially explosive areas\* can thus be permanently guaranteed.

**Our new KLB natural quartz sand NQS 4700 AS is both technically and economically a good alternative to silicium carbide.** The special sand is primarily used for coatings in industrial or commercial areas where stress from rubber-tired industrial trucks, motor vehicles, lorries or nylon-tired transport trucks with medium loads is to be expected.

\* Explosion protection: Permanent resistance to ground  $< 10^8 \Omega$  (potentially explosive atmospheres in zones 0, 1, 20 and in zone 21) or  $< 10^6 \Omega$  for explosives according to TRGS 727, measured according to DIN EN 61340-4-1



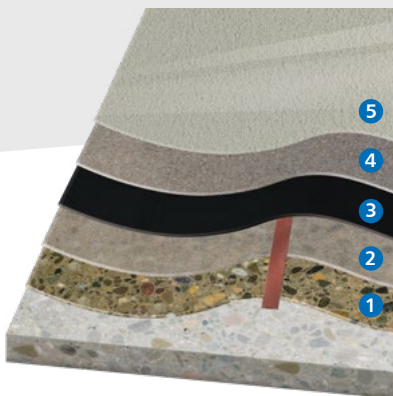
### That's convincing!

- economical
- good market availability
- for electrically conductive slip-resistant coatings
- wear-resistant and durable
- can be used in diffusible systems
- suitable for car, truck and forklift traffic as well as for transport carts with polyamide wheels
- high proportion of natural raw materials

**Please note:** All stated information is based on our experience and technical preparation. It is We guarantee the correct and proper quality of our products. We do not assume responsibility. Our brochure contains the current status of KLB technology at the time of publication. Only the la our "General Terms and Conditions" apply.

# System build-up 1: Conductive EP scattered coating

5. Top sealer **EP 296 Kopfsiegel**
4. Base layer with **EP 99 EL+**, fully scattered with natural quartz sand **NQS 4700 AS** followed by intermediate sanding
3. Conductive layer **EP 799 Ableitgrund**
2. Scratch coat with **EP 50**, openly scattered with natural quartz sand **NQS 0.3/0.8 mm**
1. Primer **EP 50**



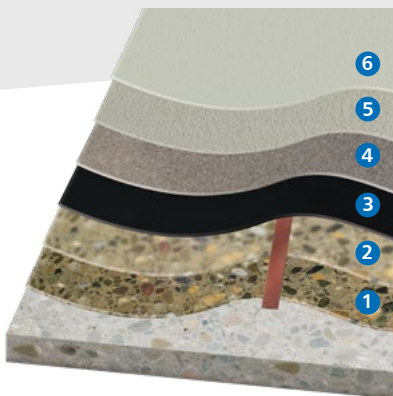
Layer	Product	Consumption kg/m <sup>2</sup>	Tool
Primer	EP 50	0.3-0.4	Smoothing trowel or nylon roller
Scratch coat (optional)	EP 50: KLB 2/1 = 1:0,7-0,8 alternatively: EP 50: KLB 3/1 = 1:0,8-1,0	1.0-1.3 1.3-1.5	Smoothing trowel
Open scattering	NQS 0.3/0.8 mm	1.0-2.0	
Conductive layer	EP 799 Ableitgrund	0.18-0.25	Nylon roller. <b>Place KLB copper strips</b>
Base layer	EP 99 EL+ : KLB 3/1 = 1:0.6	1.2-1.5	Smoothing trowel over grain
Full scattering	NQS 4700 AS	3-5	
Intermediate sanding	Sandpaper P16		Grain tips break under light pressure
Top sealer	EP 296 Kopfsiegel	0.5-0.7	Joint board/rubber floor wiper/nylon roller

Resistance to ground < 10<sup>6</sup> Ω

## System build-up 2:

### Conductive, diffusible EP scattered coating

6. Matt sealer PU 813 EL+/ESD
5. Top sealer EP 785 EL+
4. Base layer with EP 785 EL+, fully scattered with natural quartz sand NQS 4700 AS
3. Conductive layer EP 799 Ableitgrund
2. Scratch coat with EP 724 E Haftgrund Super
1. Primer EP 724 E Haftgrund Super



Layer	Product	Consumption kg/m <sup>2</sup>	Tool
Primer	EP 724 (plus 10 - 15% of water)	0.2-0.4	Smoothing trowel or nylon roller
Scratch coat (optional)	EP 724 (plus 5% of water) : NQS 0.1/0.3mm = approx. 1 : 0.2	0.6-0.8	Smoothing trowel
Conductive layer	EP 799 Ableitgrund	0.10-0.14	Nylon roller. <b>Place KLB copper strips</b>
Base layer	EP 785 EL+	2.4-2.7	Toothed blade S3
Full scattering	NQS 4700 AS	5-7	
Top sealer	EP 785 EL+	0.7-0.9	Joint board/rubber floor wiper/nylon roller
Matt sealer to obtain ESD properties (optional)	PU 813 EL+/ESD	0.14-0.18	Rubber floor wiper, nylon roller

Resistance to ground < 10<sup>6</sup> Ω

## NQS 4700 AS and silicium carbide in direct comparison

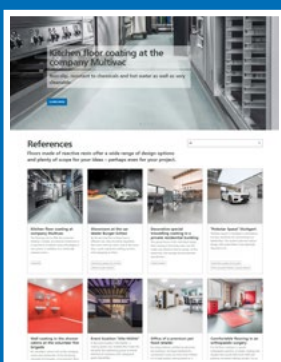
Layer	NQS 4700 AS	SiC
Grain size	0.3 - 0.8 mm	0.3 - 0.8 mm
Electrical conductivity $R_g$	$< 10^6 \Omega$	$< 10^6 \Omega$
ESD-coatings possible	yes	yes
Slip-resistance	approx. R11	approx. R11 - R13
Mechanical load-bearing capacity	normal industrial load (cf. quartz sand)	high or very high load
Availability	high	fluctuating
Economic efficiency	excellent	fluctuating
Origin	mainly regional	globally sourced
Environmental impact	low	high (energy consumption)

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