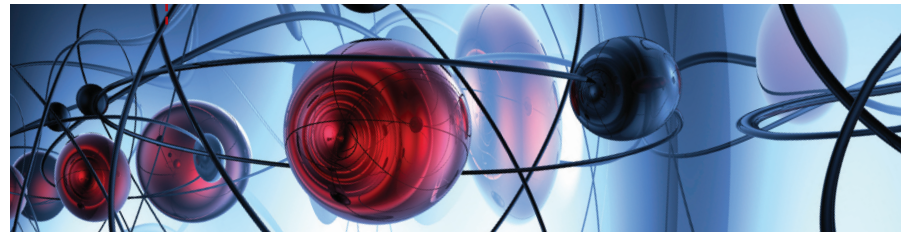


Grabo Silver Knight is a self-cleaning floor with air-purifying function



TiO₂ DECOMPOSES THE ORGANIC DIRT -> LESS CLEANING NEEDED

Self-cleaning surfaces based on photocatalytic reactions are new phenomenon in the world which is beyond the easy-cleaning properties. Nanoscale TiO₂ gives hydrophilic properties to Grabo Silver Knight flooring. Due to its increased surface energy **the dirt adheres less which means that it also easier to remove**. While washing it, water runs off in film rather than droplets, taking with it all dirt.

TiO₂ DECOMPOSES THE ODORS AND HARMFUL MATERIALS -> IMPROVE INDOOR AIR QUALITY

Through photocatalysis **odors can be decomposed** into their harmless constituent parts. It works on the same way in case of pollutants such as nicotine or formaldehyde and unpleasant smells e.g. ammonia or fish odor.

... and helps you to create a healthier and safer environment

Due to the self-cleaning property and the continuous oxidation of harmful materials and odors, Grabo Silver Knight flooring has less impact on the environment and ensures more effective infection-control than standard floorings.

- Lower risk of a hospital-acquired infection
- Lower risk of longer hospital stay
- Less cost per patient
- Significantly extended cleaning cycles
- Thus reduced personnel and detergent costs
- Significantly reduced life cycle cost
- Air purifying attribute for well-being

GRABO SILVER KNIGHTS FLOORING DUE TO PHOTOCATALYTIC SELF-CLEANING IS A LOW-MAINTENANCE AND TROUBLE-FREE SOLUTION.

GRABO SILVER KNIGHT IS AN ULTIMATE, ENVIRONMENTALLY SOUND CHOICE OF ANY FACILITY



Grabo
HEALTHCARE

**SILVER
KNIGHT**

THE MOST HYGIENICAL
VINYL SHEET FLOORING
AVAILABLE

ELIMINATES
BACTERIA



Without the use of chemicals?
How does Grabo Silver Knight
eliminate even “Superbugs”?

Grabo Silver Knight eliminates harmful bacteria

Infection-control is one of the most pressing issue in today’s healthcare facilities.

- Lower risk of a hospital-acquired infection
- Lower risk of extended hospital stay
- Lower cost per patient

Grabo Silver Knight flooring is an effective asset in the fight against hospital-acquired infections (HAIs) caused by any viral, bacterial and fungal pathogens.



1st line of defense:
NANOSILVER – BACTERIA CAN BE DESTROYED WITHOUT THE USE OF CHEMICALS

The antimicrobial properties of silver have been known for more than 3000 years. The antibacterial effect of silver results from the ongoing slow diffusion of silver ions. **Bacteria have no chance of survival** as the ions fast hinder the process of cell division, secondly destabilize the cell membrane, walls or plasma and thirdly interrupt the enzyme's transport of nutrients.

2nd line of defense:
NANOTIO₂ – HELPS TO DECOMPOSE GERMS AS A PHOTO-CATALYSATOR

Titanium dioxide is a photocatalyst, similar to chlorophyllian photosynthesis, helps to **transform harmful substances into harmless compounds through a chemical oxidation process** without being used up so the effect is lasting. For the function to work, only light, oxygen and air humidity are required.

Bacteria	Standard	Reduction in number of viable bacteria in 8 hours
MRSA (Methicillin-resistant Staphylococcus aureus)	ISO 27447:2009	>99% bacteria destroyed
VRE (Vancomycin-Resistant Enterococcus)	ISO 27447:2009	
ESBL (Extended-spectrum -lactamas producing enterobacter species)	ISO 27447:2009	
E-coli	ISO 27447:2009	

Grabo Silver Knight resilient sheet vinyl floorings with self-disinfecting surface for heavy duty applications.

Technical parameters	Units	Standards	Silver Knight on Diamond Tech construction
DESCRIPTION			
Construction			compact heterogeneous
Total thickness	mm	EN 428	2,0
Wear layer thickness	mm	EN 429	0,7
Width of roll	m	EN 426	2
Length of rolls	lm	EN 426	20
Total weight	g/m ²	EN 430	2800
CLASSIFICATION			
Classification	class	EN 685	34/43
PERFORMANCE			
Abrasion group		MSZ EN 660-1	T
Residual indentation	max. mm	EN 433	0,1
Dimensional stability	max. %	EN 434	0,2
		class	EN 13501-1
Fire resistance		ASTM E 648/ 662	class1/pass
		Gost 30402-94	G1
Slip resistance		DIN 51130	R9
		ASTM D2047-99	dry:0,88/ wet:0,86
Abrasion resistance (H-18 wheel)	g/1000 circle	ASTM D3884-01	-0,2
Abrasion resistance	g/100 000 c.	ASTM D3884-01	-0,65
Shore A hardness		ISO 868	95
Electrical resistance	kV	EN 1815	< 2
	Ω	EN 1081	≤ 10 ⁹
Chemical resistance		EN 423	✓
		ASTM F925-02	✓
Bacterial resistance		EN ISO 846:1999	✓
Antimicrobial activity	%	ISO 27447	> 99
Light fastness	grade	EN 20105 B02	6
Castor chair resistance		EN 425	✓
Surface treatment			TECHSurface
Anti-bacterial and fungicid treatment			Silver Knight
Seaming method			heat or cold weld
Warranty	year		15



GRABO SILVER KNIGHT IS A RESILIENT VINYL SHEET FLOORING WITH A PHOTOCATALYTIC SELF-DISINFECTING SURFACE, DEDICATED FOR HEALTHCARE INDUSTRY. ITS DISINFECTING ACTIVITY IS REACHED BY A UNIQUE DOUBLE-DEFENSE-LINE, BUILT UP FROM NANOSILVER AND NANOTIO₂ PARTICLES.