



SAFETY TECH

Construction	Compact Heterogeneous
Length of roll	Approx 20lm
Width	2m
Total Weight	2.4kg/m ²
Wear layer thickness	0.7mm
Total Height	2.0mm

Wear Classification	EN ISO 10874 34/43
Abrasion Group	EN 660-1 T >2mm ³
Residual Indentation	EN ISO 24343 max 0.1mm
Dimensional Stability	EN ISO 23999 max 0.2%
Slip Resistance	RRL Pendulum Test >36 (wet test) EN 13893 Class DS
Bacterial resistance	EN ISO 105-B02 Pass
Chemical Resistance	EN ISO 26987 Pass
Castor Chair	EN ISO 4918 A-Continuous
Surface treatment	TechSurface
Seaming method	Heat or cold weld
Anti-bacterial and fungicide treatment	Silver Knight
Light Fastness	EN ISO 105- B02 Grade 6
Flammability	EN 13501-1 Bfl-s1

Guarantees: 10 years heavy commercial
Full details of conditions and limits of guarantees available on request.



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Safety Tech



The most hygienic safety vinyl flooring there is.

SILVER KNIGHT – What is it?



- It is the first disinfecting vinyl sheet flooring specially developed for the healthcare industry
- SILVER KNIGHT eliminates more than 99% of bacteria, even superbugs (MRSA, E-coli)
- It is produced according to patented TECH Surface technology

Bacteria eliminator – better than Antibacterial properties

Bacteria	Standard	Reduction in number of viable bacteria in 8 hours
MRSA (Methicillin-resistant Staphylococcus aureus)	ISO 27447:2009	>99%
VRE (Vancomycin-Resistant Enterococcus)	ISO 27447:2009	>99%
ESBL	ISO 27447:2009	>99%
E-coli	ISO 846:1997	>99%
C-Diff (Clostridium Difficile)	ISO 27447-2011	>77%

Antibacterial property: inhibit the growth of bacteria and fungi, but it does not disappear.

Bacteria elimination: bacteria will not only be dead but they disappear from the surface.

It has three main benefits

1. Eliminates bacteria with double defence line, without the use of chemicals.
2. Environmentally sound: more effective infection control with easy cleaning and air-purifying
3. Due to the nanotechnology it is cost efficient



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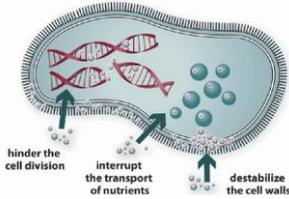
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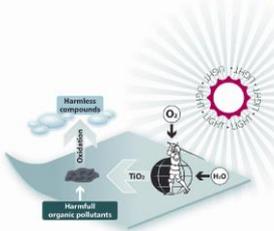


First line of defence: Nano-Silver



- Silver has been known as a natural antibacterial material for many years.
- Effective against more than 650 germs.
- Used in medicine and in everyday life (silver tableware, door knobs, dentistry equipment etc).

Second line of defence: Nano-Titanium dioxide

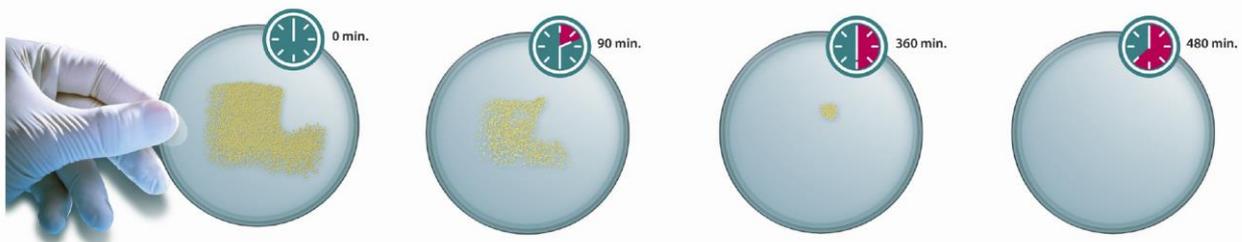


- TiO₂ acts as a photocatalyst – it is based on the same principle as the chlorophyllian photosynthesis.
- TiO₂ is not consumed – the procedure is sustainable for a long period.

Environmentally sound solution for healthcare

1. More effective infection control with easy cleaning
Due to the photocatalytic reaction, the surface energy is increased so dirt adheres less and is easier to remove. Safety Tech Silver Knight is active round the clock 24/7 and helps to reduce microbial contamination in between cleanings.
2. Improve indoor air quality
Through photocatalysis odours are decomposed into harmless constituent parts. It works in the same way for pollutants as well, such as nicotine or formaldehyde and unpleasant smells e.g. ammonia or fish odour.
3. Safer environment – less chemicals

Demonstration of disinfective property (against MRSA)



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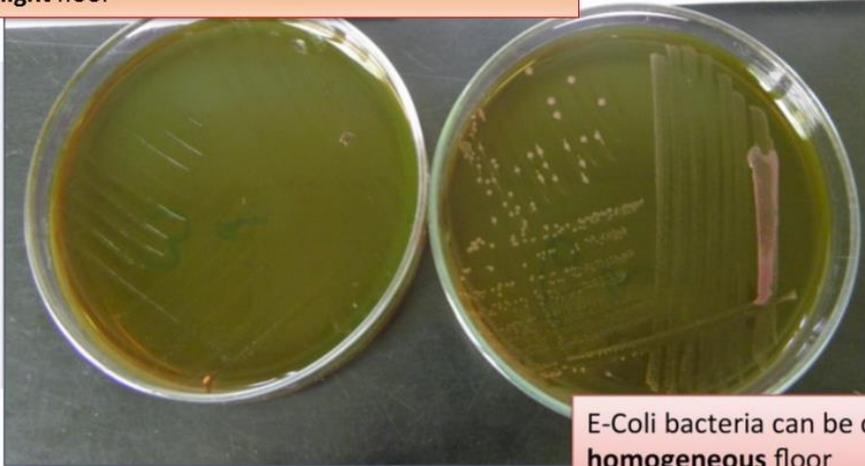
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Empirical Microbiological test in hospital practice

No harmful bacteria can be cultivated on **Safety Tech Silver Knight floor**



Bacteria cultivating
(at 37° C, after 48 hours)

E-Coli bacteria can be cultivated on **homogeneous floor**

References



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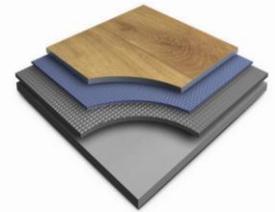


Listed Benefits of Safety Tech 'Silver Knight'

Safety Tech Silver Knight Flooring is a low maintenance and trouble free flooring solution

Safety Tech Silver Knight flooring offers:

1. A superior 10 year warranty
2. Award winning environmentally friendly flooring to ISO 9001 and ISO 14001 (Chicago Neocon 2010 Product Innovations Award)
3. Superior stain resistance and easy clean
4. TECH surface is 3-5 times stronger than regular sheet vinyl
5. Safety Tech Silver Knight Flooring fulfils the European requirements of REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals regulation.)
6. Bacteria, fungi and viruses are destroyed without the need for harmful chemicals.
7. Due to the photocatalytic reaction, the surface energy is increased, resulting in less adhesion of dirt and the interval between cleaning cycles can be significantly extended resulting in less detergent, less cleaning hours and a more efficient and effective cleaning cycle.
8. Safety Tech Silver Knight flooring is active 24/7 and helps to reduce bacterial contamination between cleaning cycles.
9. Safety Tech Silver Knight flooring helps to improve indoor air quality through oxidation of air pollutants and odours, including urine, blood, ammonia and isopropyl alcohol.



Slip Resistance

Safety Tech Silver Knight flooring has a slip resistance of both R10 and 36+ Pendulum.

'Pendulum' Slip Resistance – the definitive slip rating measure is

- developed by the HSL (Health and Safety Laboratory)
- developed for the HSE (Health and Safety Executive)
- research carried out in conjunction with UKSRG (UK Slip resistance Group and British Standards)
- UK developed, UK driven, UK researched, UK adopted, UK standards

Interpretation of pendulum results

Pendulum results should be interpreted using the information reproduced below (from UKSRG, 2011) Slip potential classification, based on pendulum test values (PTV)

- High slip potential 0-24
- Moderate slip potential
- **Low slip potential 36+**



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Pendulum Versus Ramp

- Many European flooring manufacturers use ramp-type tests to classify the slipperiness of their products before sale
- Such tests are generally carried out using German National Standard test methods (DIN 51097:19924 and DIN 51130:20045)
- DIN 51097 uses barefoot operators with a soap solution as the contaminant and DIN 51130 uses heavily-cleated EN:ISO 20345 safety boots with motor oil contamination
- HSE has reservations about these test methods as neither uses contaminants that are representative of those commonly found in workplaces and the way the results are reported and applied is a cause for concern.

SANDBERG



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54053/F/3

Date of Receipt

19/8/2015

Date of Test

19/8/2015

SLIP RESISTANCE TESTING USING THE PENDULUM TESTER
BS 7976:Part 2:2002+A1:2013

Project:	NA
Rubber Slider Type:	'96' (formerly 4S)
Material Under Test:	Safety Tech Silver Knight 14.08.2015 , 300 x 300 x 2mm

Sandberg Sample Ref.	Surface Finish	Surface Roughness ¹ R _z , µm	Surface Temperature, °C	Orientation	Pendulum Test Value (mean)	
					Dry	Wet
F86946	As manufactured	19.2	22	A	70	45
				90° to A	66	45

The TRL pendulum tester has a range of readings from 0 to 150, high values indicating good slip resistance. Guidance on the interpretation of results using the Four S Slider is suggested by the UK Slip Resistance Group² as follows:-

Potential For Slip

High
Moderate
Low

Pendulum Test Value

0 to 24
25 to 35
36+



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Cleaning recommendations for Safety Tech

Safety Tech (Silver Knight)

Grab slip resistant floorings provide increased protection against slipping due to their special structure surface and chemical composition. For these safety floor coverings we recommend only machine cleaning techniques. It is forbidden to use any wax and polish for the safety vinyl floors.

Initial cleaning / after installation / and periodical cleaning / in case of heavy dirt

Remove all dirt and dust with a vacuum from the surface and use mono-disc machine with red pad, using strong alkaline detergent (pH11-13), scrub the floor to clean. The soiled water should be removed by wet vacuum cleaner, then rinse the floor with clean water at least twice, mop up the water and allow the surface to dry. If the room is small and cannot be machine cleaned, apply a scrub brush.

Daily cleaning

Remove all dirt and dust with vacuum from the surface and use mono-disc machine with white or red pad, using soft alkaline detergent (pH8-10) or neutral detergent, scrub the floor clean. The soiled water should be removed by wet vacuum cleaner, then rinse the floor with clean water at least twice, mop up the water and allow the surface to dry. If the room is small and cannot be machine cleaned, apply a scrub brush.



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