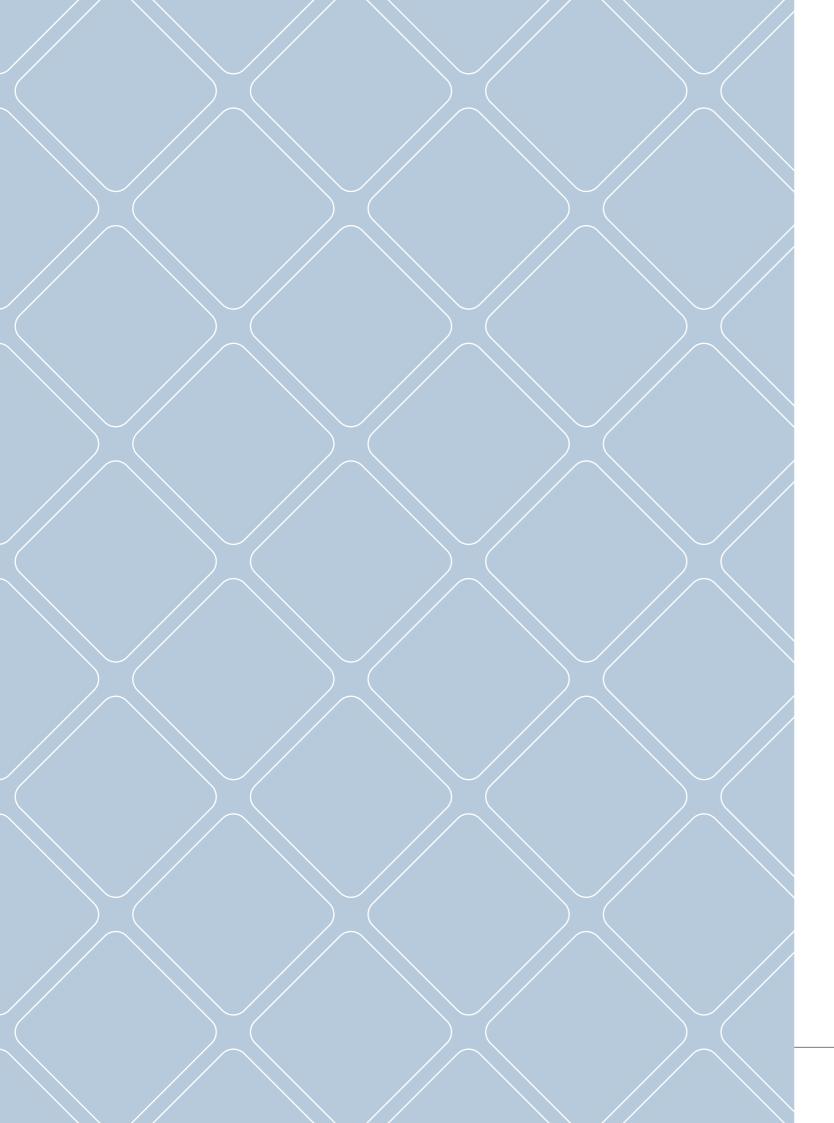


COMMERCIAL

VINYL FLOORINGS







COMMERCIAL

VINYL FLOORINGS

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GRABO COMMERCIAL



COMMERCIAL VINYL FLOORINGS

We're excited to introduce our new Grabo's 2019 Commercial catalogue, your guide to our products and services.

You can find all about our heterogeneous and homogenous floor and wall covering products recommended for commercial and light-commercial applications.

WHY GRABO?

Graboplast Ltd is one of the biggest independent floor covering manufacturer company with over 110 years of experience.

• FLEXIBILITY

The key factor of this long-term success is the ability to develop the products that would meet the always changing market requirements.

INNOVATION

Our production is based exclusively on our own technologies and unique production processes developed and improved continuously by our R&D.

QUALITY

The life-long commitment to quality is the basis of stable and reliable business partnership we offer to our clients all around the world.

SUSTAINABILITY

The Graboplast Company takes considerable efforts to maintain a healthy environment for both its employees and people living



GRABO

ENVIRONMENTAL ATTRIBUTES {AK() \/ OORINGS



PHTHALATE FREE TECHNOLOGY

Grabo floorings contain biologically inert plasticizer which can be used in sensitive areas as well, such as medical devices and children toys. Thanks to the eco-friendly formulations our products have low volatile organic compounds (low VOC), therefore they do not adversely affect the indoor air quality.



100% RECYCLABLE

Beside the carefully selected raw materials and the environment-friendly manufacturing solutions we pay attention to the fact that our products do not impact the environment at the end of their life-cycle either. Accordingly our floorings are 100% recyclable.



NO WASTE PRODUCT

It is important to know that we not only declare that our products can be 100% recycled but we ourselves can convert the production waste and post-consumer waste into valuable raw materials which are incorporated into our floor production.



NO HARMFUL MATERIALS

Grabo floorings are metal and solvent free resulting in reduced global environmental pollution.



NO WAX

Grabo floorings have reduced cleaning requirements. Enviromental impact is lessened by: no energy needs for waxing, reduced energy needs for cleaning, reduced cleaning agent use, reduced water use, and reduced wastewater generation.



WHAT IS...



SILVER KNIGHT

Grabo Silver Knight eliminates harmful bacteria without the use of chemicals. It has a self-disinfecting surface reached by a unique double-defense-line.



IGUARD PUR SURFACE

UV cured, cross linked Polyurethane reinforcement which ensures easy cleaning and durability. No additional surface treatment needed for the whole lifetime of



TECH SURFACE

Extreme durability due to PUR and micronized Al₂O₂ particles TECH Surface is a revolutionary new technology which makes the surface not only extremely hard and wear resistant but flexible so the installation can be carried out easily and quickly. The benefits of TECH Surface technology are the excellent stain and chemical resistance, the abrasion resistance and the easy maintenance.



FASY CARE

Easy Care PUR makes the product easy to clean, whilst at the same time ensuring the safety properties and other technical performance benefits remain for a



CLP SYSTEM

CLP is a complex system built up of PVC and cross linked polymer. Its essentiality is, on one hand - against other technical solutions - that CLP ensures throughout the intensive usage the constant parameters not only on the surface, but in the cross section of the wear layer: the durability of the product increases, which involves that the degree of wear and tear decreases. On the other hand due to the high density of the cross links, CLP diminishes the adhesion of the contamination on the surface, substantially improving the cleanibility of the flooring.



GRABOSAN

No surface is more at risk of contamination than the floor. In healthcare one of the most important steps in reducing the spread of infectious diseases is the cleaning and sanitizing of surfaces. Routine cleaning with detergent and water is useful for removing visible dirt and germs, but floor coverings require an additional performance to reduce the number of germs.

Therefore Grabo invented graboSAN, the anti-microbe additive contained surface treatment against mold, fungi, yeast, algae and bacteria. The result of the test method given in the International Standard ISO 846:1997 certify that no significant microbe growth could be observed on the graboSAN surface treated floors. The tests have been carried out with the Pseudomonas aeruginosa bacterium, which is one of the most common pathogens involved in hospital infections causing pneumonia, and with Aspergillius niger fungus, which causes a disease called black mold on certain fruits and vegetables.





FORTIS

HIGH PERFORMANCE, NON-DIRECTIONAL HOMOGENEOUS FLOOR COVERING



PERFORMANCE, FEATURES & BENEFITS

Excellent abrasion resistance, Unique nondirectional design, Low residual indentation Easy cleaning and maintenance thanks to iGuard PUR Surface, Anti-bacterial, Antistatic

RECOMMENDED USAGE

Healthcare | Education | Offices Other public areas

CONSTRUCTION





iGuard PUR Surface Non-directional homogeneous layer

DESCRIPTION

Construction		homogeneous
Binder content	EN ISO 10581	Type I.
Total thickness	EN ISO 24346	2.0 mm
Wear layer thickness	EN ISO 24340	2.0 mm
Width of roll	EN ISO 24341	2 m
Length of roll	EN ISO 24341	20 lm
Total weight	EN ISO 23997	2,8 kg/m ²

CLASSIFICATION

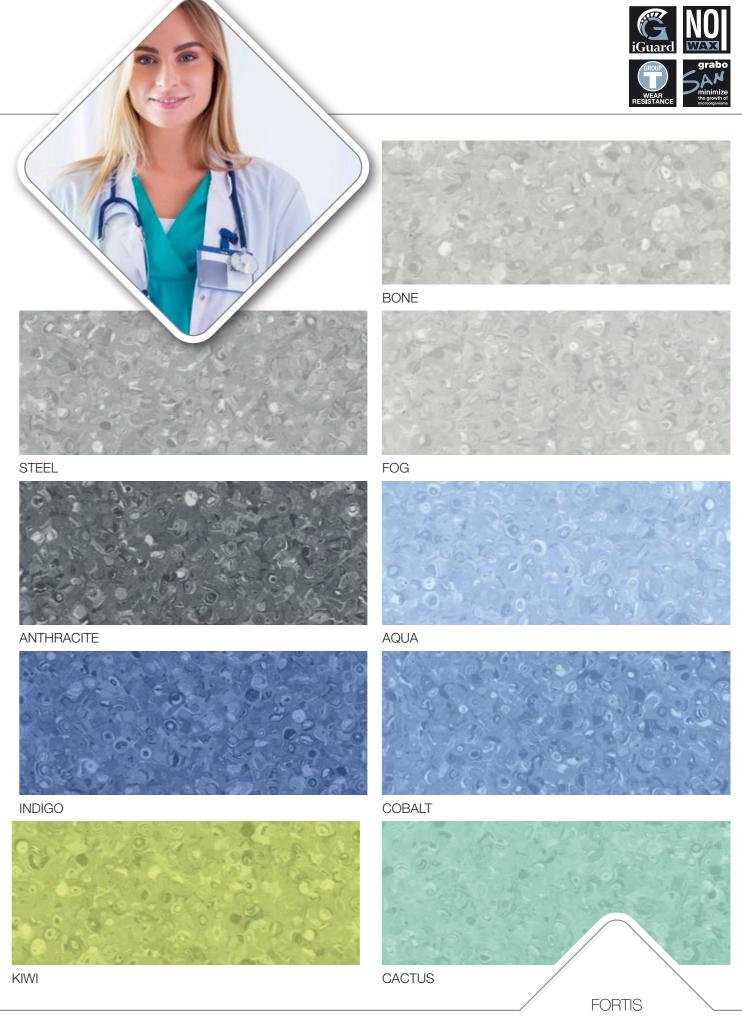
European classification | EN 685 | class: 34/43

PERFORMANCE		
Abrasion group	EN 660-1	T
Residual indention	EN ISO 24343	max. 0.1 mm
Dimensional stability	EN ISO 23999	max. 0.4 %
Fire resistance	EN 13501-1	class: Bfl-s1
Slip resistance	EN 13893	class: DS
Electrical resistance	EN 1815	< 2 kV
Chemical resistance	EN ISO 26987	✓
Light fastness	EN 20105 B02	grade 6
Castor chair resistance	EN ISO 4918	✓
Hygenie	1	bacterial resistant
Seaming methot		hot or cold welding
Warranty		10 year



FORTIS





FORTIS FITT

FORTIS FITT IS A HEAVY DUTY DANCE AND FITNESS FLOOR FOR HIGH PERFORMANCE



PERFORMANCE, FEATURES & BENEFITS

Long life expectancy, iGuard surface – easy cleaning and maintenance, Excellent abrasion and scuff resistance, Non-directional design in vogue colors, Anti-bacterial, Dimensionally stable

RECOMMENDED USAGE

Fitness halls | Stages | Exhibitions | Catwalks Dance halls | Studios

CONSTRUCTION





iGuard PUR Surface Non-directional homogeneous layer

DESCRIPTION

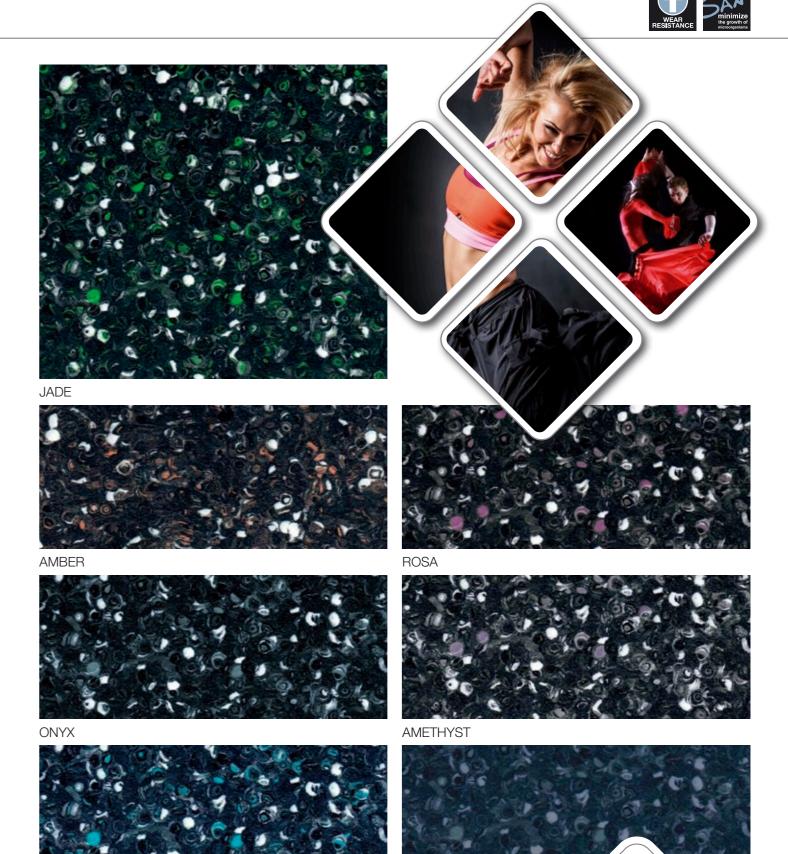
Construction		homogeneous
Binder content	EN ISO 10581	Type I.
Total thickness	EN ISO 24346	2.0 mm
Wear layer thickness	EN ISO 24340	2.0 mm
Width of roll	EN ISO 24341	2 m
Length of roll	EN ISO 24341	20 lm
Total weight	EN ISO 23997	2,8 kg/m ²

CLASSIFICATION

European classification EN 685 class: 34/43

PERFORMANCE		
Abrasion group	EN 660-1	T
Residual indention	EN ISO 24343	max. 0.1 mm
Dimensional stability	EN ISO 23999	max. 0.4 %
Fire resistance	EN 13501-1	class: Bfl-s1
Slip resistance	DIN 51130	R9
	EN 13893	class: DS
Electrical resistance	EN 1815	< 2 kV
Chemical resistance	EN ISO 26987	√
Light fastness	EN 20105 B02	grade 6
Castor chair resistance	EN ISO 4918	√
Hygenie	1	bacterial resistant
Seaming methot		hot or cold welding
Warranty		10 year

TURQUOISE



NOX

FORTIS FITT

TRIUMPH

HIGHLY DURABLE
HOMOGENEOUS
MULTIPURPOSE
FLOORING





PERFORMANCE, FEATURES & BENEFITS

Non-directional design, Ease of cleaning due to iGUARD Surface treatment, Good chemical protection, Bacterial resistant surface, Flexible structure for easy installation,

RECOMMENDED USAGE

Healthcare | Education | Offices Other public areas

CONSTRUCTION





iGuard PUR Surface Non-directional homogeneous layer

DESCRIPTION

	homogeneous
EN ISO 10581	Type I.
EN ISO 24346	2.0 mm
EN ISO 24340	2.0 mm
EN ISO 24341	2 m
EN ISO 24341	20 lm
EN ISO 23997	2,9 kg/m ²
	EN ISO 24346 EN ISO 24340 EN ISO 24341 EN ISO 24341

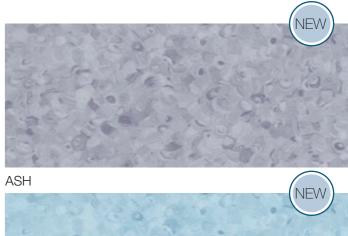
CLASSIFICATION

European classification | EN 685 | class: 34/43

PERFORMANCE

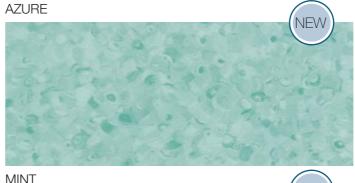
PERFURIMANCE		
Abrasion group	EN 660-1	T
Residual indention	EN ISO 24343	max. 0.1 mm
Dimensional stability	EN ISO 23999	max. 0.4 %
Fire resistance	EN 13501-1	class: Bfl-s1
Slip resistance	DIN 51130	R9
	EN 13893	class: DS
Electrical resistance	EN 1815	< 2 kV
Chemical resistance	EN ISO 26987	I √
Light fastness	EN 20105 B02	grade 6
Thermal resistance	EN 12524	0.012 m2K/W
Castor chair resistance	EN ISO 4918	I √
Content of PCP	EN 12673	Does not contain
Formaldehide emission	ENV 717-1	E1 (no emission)
Hygenie		bacterial resistant
Seaming methot		heat or cold weld
Warranty		10 year

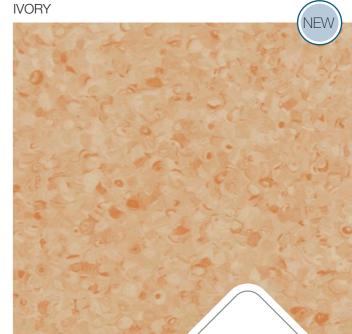












TRIUMPH



VANILLA

HONEY

16 | 17

CONDUCTO S

HIGH PERFORMANCE,
HOMOGENEOUS
FLOOR COVERING
WITH ELECTROSTATIC
CONDUCTIVE





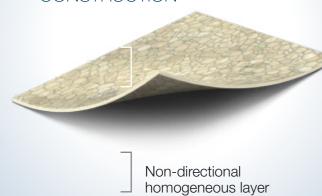
PERFORMANCE, FEATURES & BENEFITS

Guarantees the lasting elimination of electrostatic charges, Due to the highest (group T) wear resistance, Grabo Conducto is a long-term solution. Hinder the aggregation of dust.

RECOMMENDED USAGE

operating rooms in hospitals
X-ray departements | laboratories
computer rooms | electronics
manufacturing | telecommunications, etc.

CONSTRUCTION



DESCRIPTION

Construction		homogeneous	
Binder content	EN ISO 10581	Type I.	
Total thickness	EN ISO 24346	2.0 mm	
Wear layer thickness	EN ISO 24340	2.0 mm	
Width of roll	EN ISO 24341	2 m	
Length of roll	EN ISO 24341	20 lm	
Total weight	EN ISO 23997	2,8 kg/m ²	

CLASSIFICATION

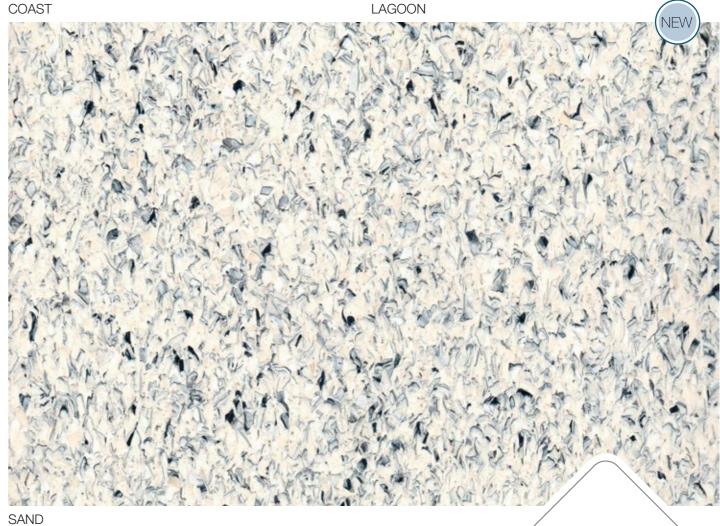
European classification | EN 685 | class: 34/43

PERFORMANCE		
Abrasion group	EN 660-1	ΙT
Residual indention	EN ISO 24343	max. 0.1 mm
Dimensional stability	EN ISO 23999	≤ 0.4 %
Fire resistance	EN 13501-1	class: Bfl-s1
Slip resistance	EN 13893	class: DS
Electrical resistance	EN 1815	< 2 kV
	EN 1081	R≤1×10 ⁶ Ω
Chemical resistance	EN ISO 26987	 ✓
Light fastness	EN 20105 B02	grade 6
Castor chair resistance	EN ISO 4918	 ✓
Bacteria and fungi resistance	EN ISO 846:1999	does not favour growth
Warranty		10 year





CONDUCTO





SILVER KNIGHT

Construction



THE MOST HYGENICAL VINYL SHEET FLOORING

PERFORMANCE. FEATURES & BENEFITS

Grabo Silver Knight eliminates harmful bacteria without the use of chemicals. Grabo Silver Knight has a self-disinfecting surface reached by a unique double-defense-line.

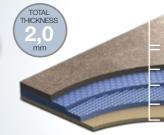
RECOMMENDED USAGE

Healthcare | Education | Hospitality Offices | Retail

iotai thickness	EN ISO 24346	2,0 mm	3,2 mm
Wear layer thickness	EN ISO 24340	0,7 mm	0,7 mm
Width of roll	EN ISO 24341	2 m	2 m
Length of roll	EN ISO 24341	20 lm	20 lm
Total weight	EN ISO 23997	2,8 kg/m ²	2,6 kg/m ²
CLASSIFICATION			
European classification	EN 685	class: 34/43	class: 34/42
PERFORMANCE			
Abrasion group	EN 660-1	T	T
Residual indention	EN ISO 24343	max. 0,1 mm	max. 0,2 mm
Dimensional stability	EN ISO 23999	max. 0,2 %	max. 0,2 %
Fire resistance	EN 13501-1	class: Bfl-s1	class: Bfl-s1
	ASTM E 648/662	class: Class1	-
	Gost 30402-94	G1	G1
Impact sound reduction	EN ISO 717-2	-	ΔL _w =19 dB
Slip resistance	DIN 51130	R9	R9
Electrical resistance	EN 1815	< 2 kV	< 2 kV
	EN 1081	≤ 10 ⁹ Ω	≤ 10 ⁹ Ω
Chemical resistance	EN ISO 26987	✓	√
	ASTM F925-02	1 ✓	✓
Bacterial resistance	EN ISO846:1999	✓	√
Antimicrobal activity	ISO 27447	>99 %	>99 %
Light fastness	EN 20105 B02	grade 6	grade 6
Castor chair resistance	EN ISO 4918	1 ✓	I √
Surface treatment		TECHSurface	TECHSurface
Anti bacterial and fungicio	d treatment	Silver Knight	Silver Knight
Seaming methot		hot or cold welding	hot or cold welding
Warranty		15 year	15 year

CONSTRUCTION

Silver Knight **DIAMOND TECH**



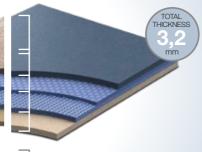
Silver Knight TechSurface wear layer

Design Middle laver Glass fibre reinforcement Compact backing

Silver Knight **ACOUSTIC 7**

Silver Knight Diamond Tech | Silver Knight Acoustic 7

compact heterogeneous heterogeneous



Silver Knight TechSurface wear layer Design

Middle layer Glass fibre reinforcement Foam backing

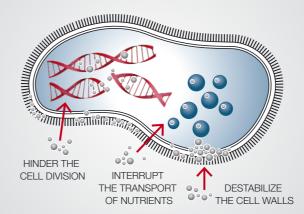
1ST LINE OF DEFENSE

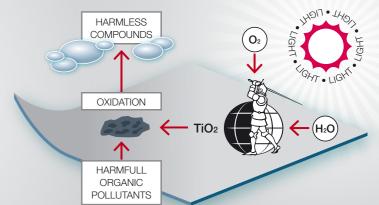
NanoSilver - bacteria is destroyed without the use NanoTiO2 - helps to decompose germs of chemicals

for more then 3000 years. The silver destroys or inactivates microbes such as bacteria, fungi and viruses. This effect of silver results from the ongoing slow diffusion of silver ions.

2ND LINE OF DEFENSE

Titanium dioxide is a photocatalyst, operating similar The disinfecting properties of silver have been known to chlorophyllian photosynthesis which helps transforming harmful substances into harmless compounds through a chemical oxidation process without being consumed.





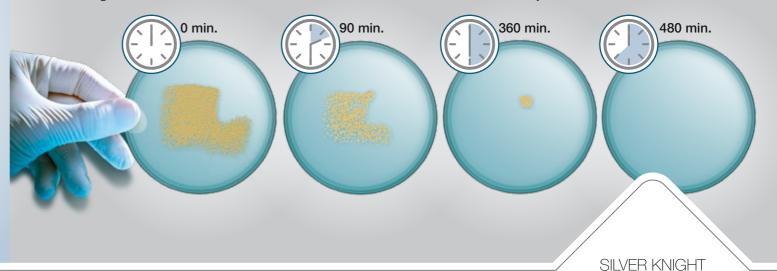
GRABO SILVER KNIGHT IS A LOW-MAINTENANCE AND TROUBLE-FREE FLOORING

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 resulting in use of less cleaning products. Grabo Silver Knight is active round the clock, 24/7, and helps to reduce microbial contamination in between cleanings.

Improve indoor air quality

Through photocatalysis odors 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 odor. Grabo Silver Knight is the ultimate, environmentally sound choice for any facilities.



SILVER KNIGHT ACOUSTIC 7 DIAMOND TECH

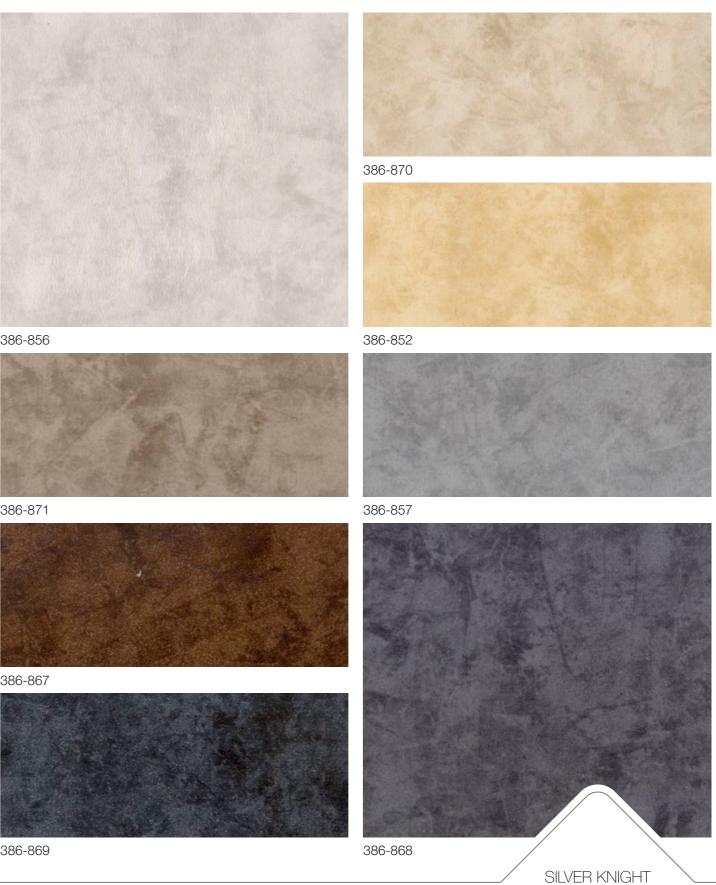
SILK



SILVER KNIGHT | DIAMOND TECH







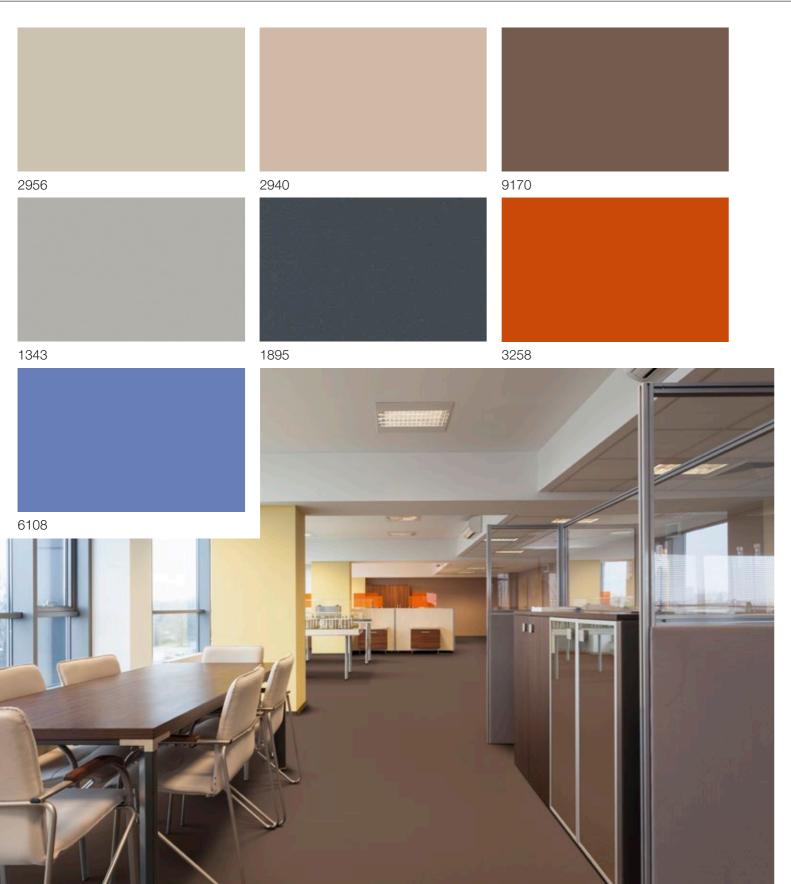
SILVER KNIGHT | DIAMOND TECH

UNI



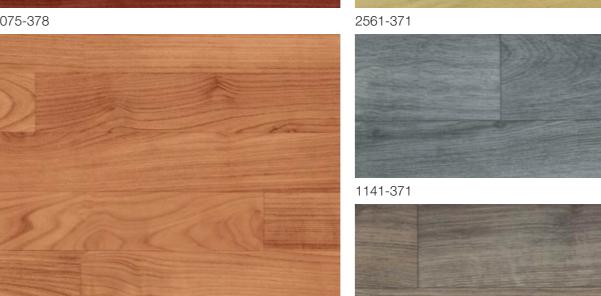
SILVER KNIGHT DIAMOND TECH NATURAL













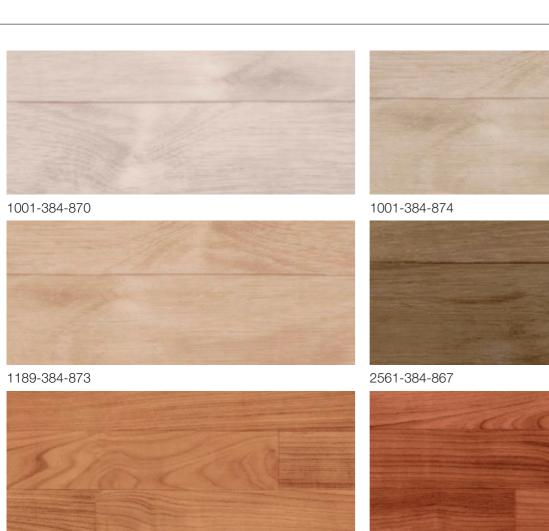


SILVER KNIGHT

SILVER KNIGHT | ACOUSTIC 7

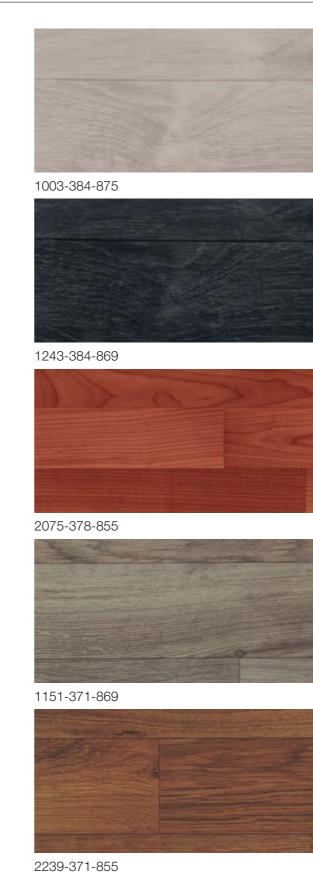
NATURAL







2518-371-871





3151-378-858

2561-371-651

2519-371-662



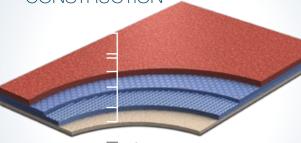
PERFORMANCE, FEATURES & BENEFITS

Excellent acoustic properties (≥19 dB), Excellent foot comfort, Dimensionally stable, Increased lifespan, Antistatic, Anti-bacterial, 10 year warranty

RECOMMENDED USAGE

Healthcare | Education | Library Corporate | Retail | Anywhere acoustical property is needed

CONSTRUCTION



CLP Wear layer
Design
Compact layer
Glass fibre reinforcement
Foam backing

DESCRIPTION

Construction		heterogeneous	
Total thickness	EN ISO 24346	3,2 mm	
Wear layer thickness	EN ISO 24340	0,7 mm	
Width of roll	EN ISO 24341	2 m	
Length of roll	EN ISO 24341	25 lm	
Total weight	EN ISO 23997	2,6 kg/m ²	

CLASSIFICATION

European classification | EN 685 | class: 34/42

PERFORMANCE

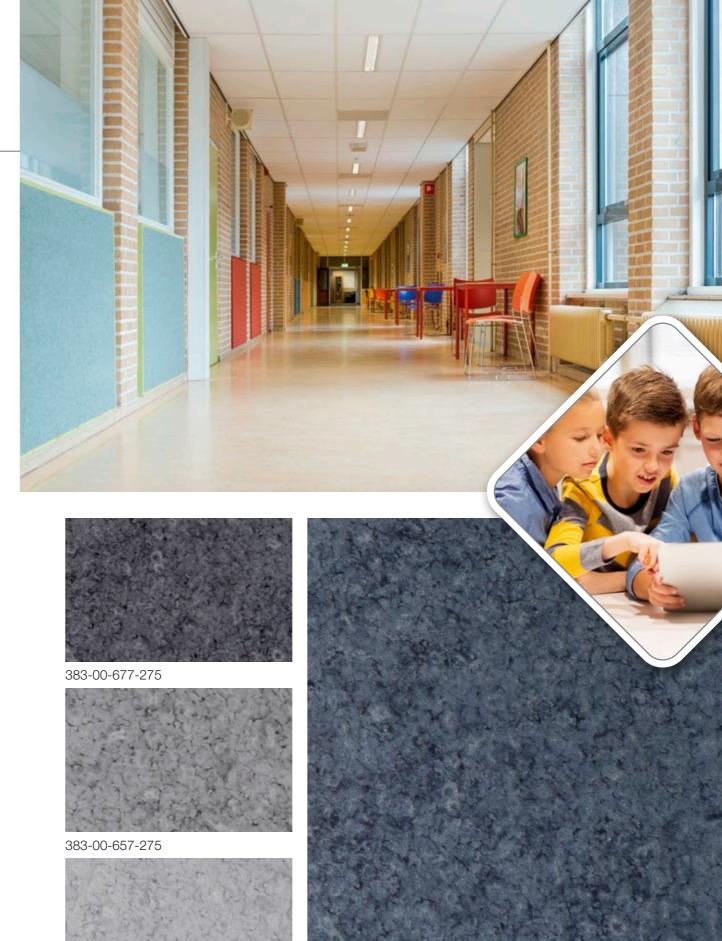
PERFORMANCE		
Abrasion group	EN 660-1	T
Residual indention	EN ISO 24343	max. 0,2 mm
Dimensional stability	EN ISO 23999	max. 0,2 %
Fire resistance	EN 13501-1	class: Bfl-s1
	BS 476	class: Class1
	Gost 30402-94	class: G1
Impact sound reduction	EN ISO 717-2	ΔL _w =19 dB
Slip resistance	DIN 51130	R9
	AS/NZS 4586	R10
Electrical resistance	EN 1815	< 2 kV
	EN 1081	I ≤ 10 ⁹ Ω
Chemical resistance	EN ISO 26987	 √
Bacterial resistance	EN ISO846:1999	 ✓
Light fastness	EN 20105 B02	grade 6
Castor chair resistance	EN ISO 4918	 ✓
Surface treatment		CLP
Anti bacterial and fungicid trea	atment	graboSAN
Seaming methot		hot or cold welding
Warranty		10 year



ACOUSTIC 7 MINERAL







383-00-659-275

ACOUSTIC 7

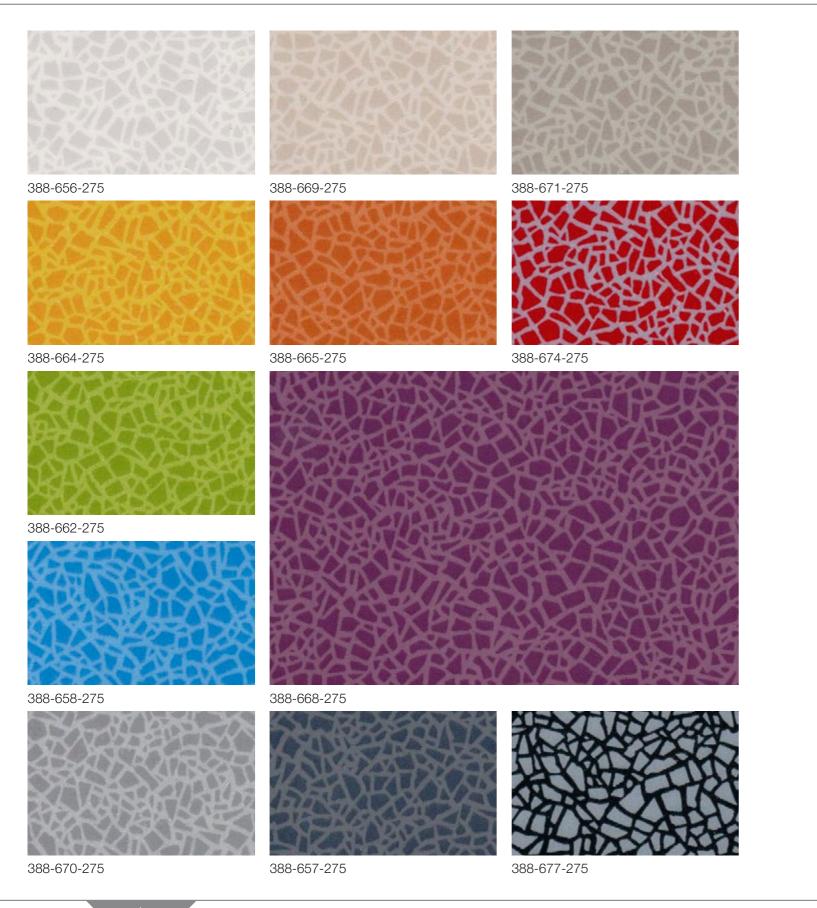
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ACOUSTIC 7 MOSAIC



ACOUSTIC 43







ACOUSTIC PRO



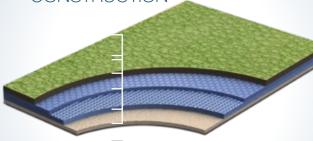
PERFORMANCE, FEATURES & BENEFITS

Excellent acoustic properties (≥19 dB), Excellent foot comfort, Dimensionally stable, Increased lifespan, Antistatic, Anti-bacterial, 7 year warranty

RECOMMENDED USAGE

Healthcare | Education | Hospitality Corporate | Retail | Anywhere acoustical property is needed

CONSTRUCTION



PUR Surface Wear layer
Design
Compact layer
Glass fibre reinforcement
Foam backing

DESCRIPTION

Construction		heterogeneous
Total thickness	EN ISO 24346	3,2 mm
Wear layer thickness	EN ISO 24340	0,55 mm
Width of roll	EN ISO 24341	2 m
Length of roll	EN ISO 24341	25 lm
Total weight	EN ISO 23997	2,5 kg/m ²

CLASSIFICATION

European classification | EN 685 | class: 33/42

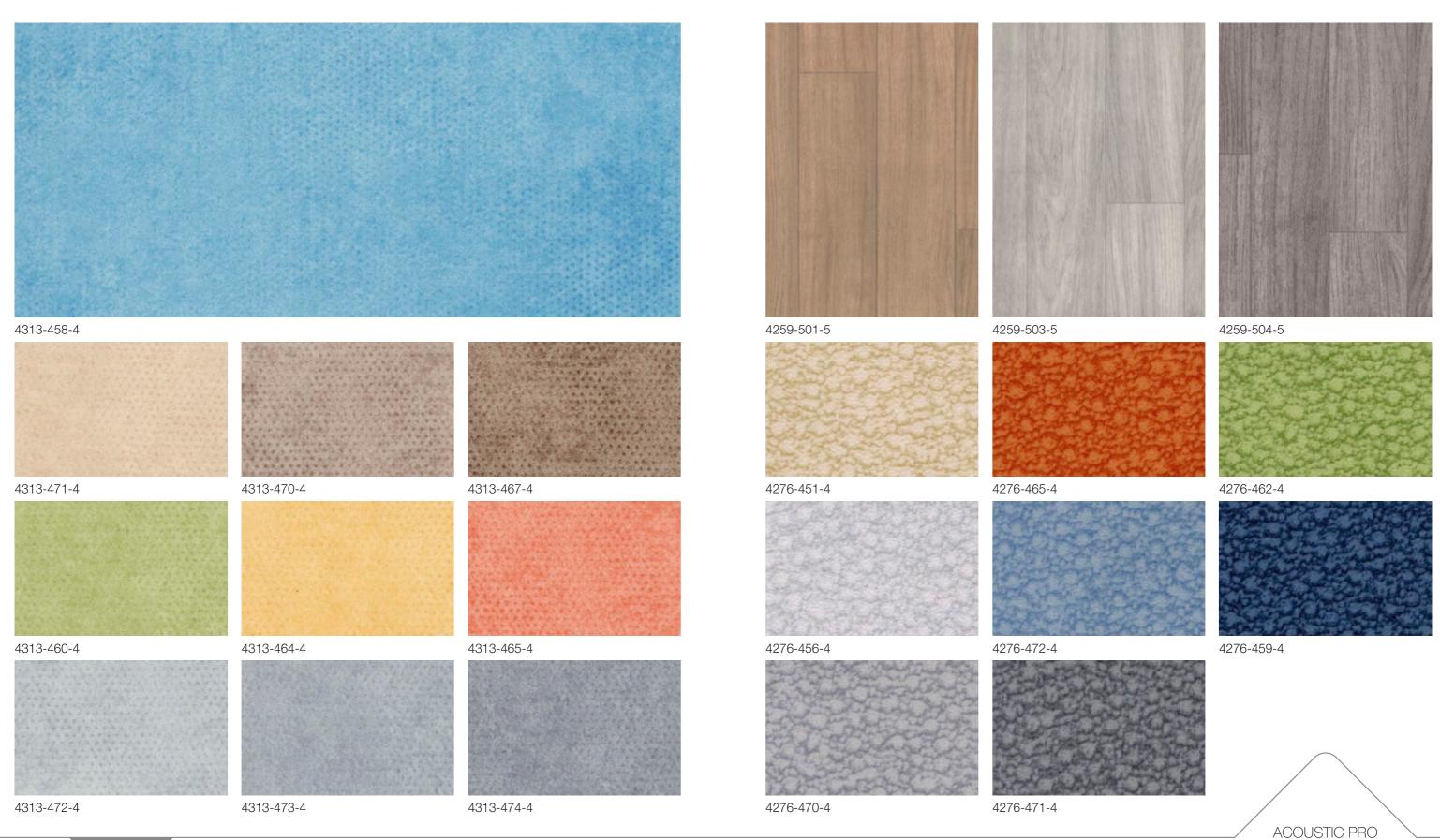
PERFORMANCE

	Abrasion group	EN 660-1	T
	Residual indention	EN ISO 24343	max. 0,2 mm
	Dimensional stability	EN ISO 23999	max. 0,2 %
	Fire resistance	EN 13501-1	class: Bfl-s1
		BS 476	class: Class1
		Gost 30402-94	class: G1
	Impact sound reduction	EN ISO 717-2	ΔL_w =19 dB
1	Slip resistance	DIN 51130	R9
ļ		AS/NZS 4586	R10
	Electrical resistance	EN 1815	< 2 kV
		EN 1081	≤ 10 ⁹ Ω
	Chemical resistance	EN ISO 26987	√
	Bacterial resistance	EN ISO846:1999	√
	Light fastness	EN 20105 B02	grade 6
	Castor chair resistance	EN ISO 4918	√
	Surface treatment		PUR Surface
	Anti bacterial and fungicid treatment		graboSAN
	Seaming methot		hot or cold welding
	Warranty		7 year



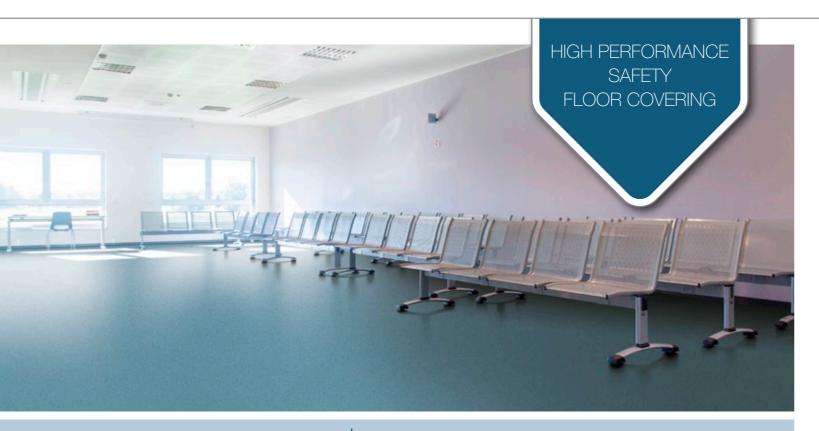
ACOUSTIC PRO





GRABOSAFE SILVER KNIGHT



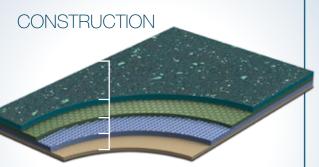


PERFORMANCE, FEATURES & BENEFITS

Destroys harmful bacteria, Excellent slip resistance, Durability, Premium vlies backing, Flexibility, 10 year warranty

RECOMMENDED USAGE

Healthcare | Education | Entrances | Receptions Corridors | Ramps | Elevators | Kitchens



Silver Knight Tech Surface wear layer **PVC** Layer Glass fibre reinforcement Flexyback® non-woven backing

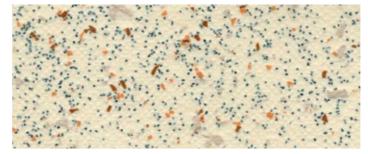
Construction		compact heterogeneous
Total thickness	EN ISO 24346	2,0 mm
Wear layer thickness	EN ISO 24340	0,7 mm
Width of roll	EN ISO 24341	2 m
Length of roll	EN ISO 24341	20 lm
Total weight	EN ISO 23997	2,6 kg/m ²

CLASSIFICATION

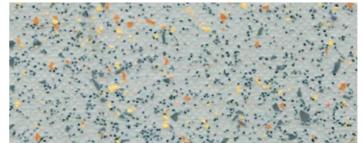
European classification | EN 685 | class: 34/43

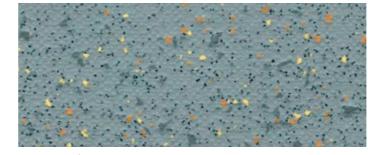
PERFORMANCE

Abrasion group	EIN 660-1	l I
Residual indention	EN ISO 24343	max. 0,1 mm
Dimensional stability	EN ISO 23999	max. 0,2 %
Fire resistance	EN 13501-1	Bfl-s
Slip resistance	RRL Pendulum Test	>36 (wet test)
	DIN 51130	R10
Chemical resistance	EN ISO 26987	 ✓
Bacterial resistance	EN ISO846:1999	 √
Light fastness	EN 20105 B02	grade 6
Castor chair resistance	EN ISO 4918	 √
Surface treatment		Tech Surface
Anti bacterial and fungicid tre	Silver Knight	
Seaming methot		hot or cold welding
Warranty		10 year



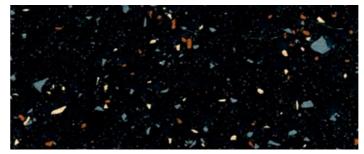




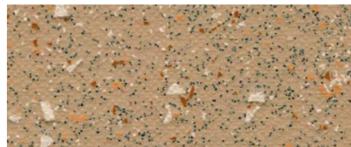




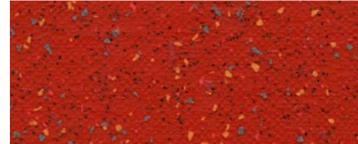
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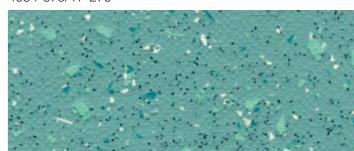
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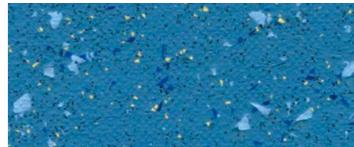
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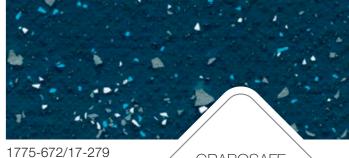
4934-675/17-279



7088-676/17-279



6339-673/17-279



GRABOSAFE SILVER KNIGHT

GRABOSAFE SILVER KNIGHT NATURAL







1001-384-851

1003-384-856



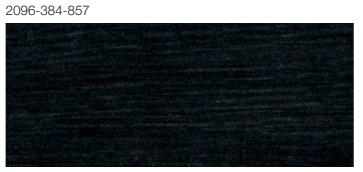
2561-384-867





2086-384-855

2239-384-868



1243-384-869



GRABOSAFE 20 JSK





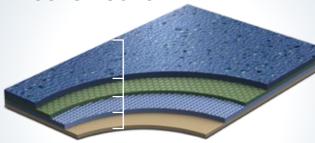
PERFORMANCE, FEATURES & BENEFITS

Excellent slip resistance, Excellent durability, Dimensionally stable, Ant-bacterial, 10 year warranty

RECOMMENDED USAGE

Wet areas | Ramps | Food prep areas Anywhere safety floor is needed

CONSTRUCTION

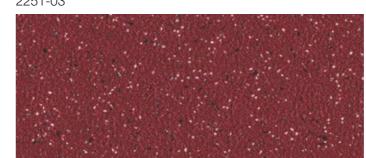


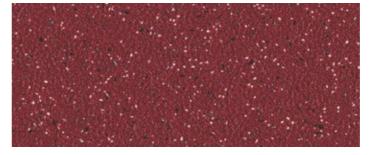
CLP wear layer **PVC** Layer Glass fibre reinforcement Flexyback® non-woven backing

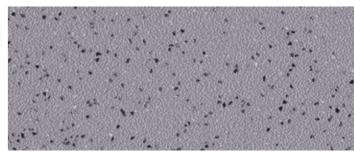
Construction		compact heterogeneous
Total thickness	EN ISO 24346	2,0 mm
Wear layer thickness	EN ISO 24340	0,9 mm
Width of roll	EN ISO 24341	2 m
Length of roll	EN ISO 24341	20 lm
Total weight	EN ISO 23997	2,6 kg/m ²
CLASSIFICATION		
European classification	EN 685	class: 34/43
PERFORMANCE		
Abrasion group	EN 660-1	ΙΤ
Residual indention	EN ISO 24343	max. 0,1 mm
Dimensional stability	EN ISO 23999	max. 0,2 %
Fire resistance	EN 13501-1	class: Cfl-s1
	BS 476	class: 1
	DIN 4102/ÖNORM	class: B1
	Gost 30402-94	class: G1
Slip resistance	DIN 51130	R10
	DIN 51097	C
	AS/NZS 4586:2004	R11
	EN 13893	class: DS
Abrasion resistance	ISO 9352	-0,25 g/1000 circle
Shore A hardness	ISO 868	90
Chemical resistance	EN ISO 26987	 √
Bacterial resistance	EN ISO846:1999	 √
Light fastness	EN 20105 B02	grade 6
Castor chair resistance	EN ISO 4918	 √
Surface treatment		CLP
Anti bacterial and fungicid tr	eatment	graboSAN
Seaming methot		hot or cold welding
Warranty		10 year



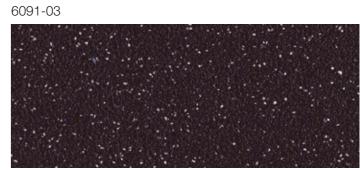


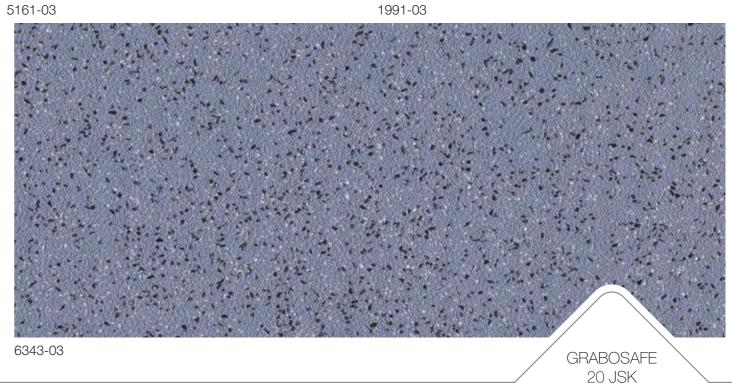








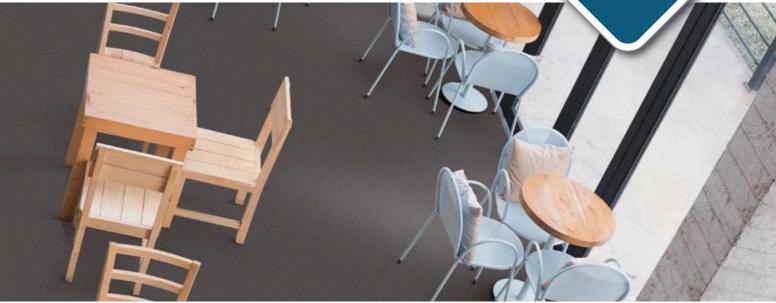




ECOSAFE

HIGH PERFORMANCE SAFETY FLOOR COVERING

compact heterogeneous



Construction

Chemical resistance

Castor chair resistance | EN ISO 4918

Seaming methot
Warranty

Light fastness

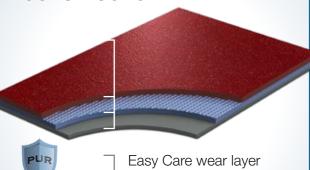
PERFORMANCE, FEATURES & BENEFITS

Excellent slip resistance, Cost effective, Great color range, Dimensionally stable, Anti-bacterial, 7 year warranty

RECOMMENDED USAGE

Wet areas | Ramps | Food prep areas Anywhere safety floor is needed

CONSTRUCTION



Lasy Gare Wear layer

Glass fibre reinforcement PVC backing

Total thickness	EN ISO 24346	2,0 mm
Wear layer thickness	EN ISO 24340	0,7 mm
Width of roll	EN ISO 24341	2 m
Length of roll	EN ISO 24341	20 lm
Total weight	EN ISO 23997	2,7 kg/m ²
CLASSIFICATION		
European classification	EN 685	class: 34/43
PERFORMANCE		
Abrasion group	EN 660-1	T
Residual indention	EN ISO 24343	max. 0,1 mm
Dimensional stability	EN ISO 23999	max. 0,2 %
Fire resistance	EN 13501-1	class: Bfl-s1
	DIN 4102/ÖNORM	class: B1
	ASTM E 648/662	class: Class1/pass
	Gost 30402-94	class: G1
Slip resistance	DIN 51130	R10
	ASTM D2047-99	dry: 0,92/wet: 0,84
	EN 13893	class: DS
	RRL Pendulum Test	>36 (wet test)
Abrasion resistance (H-18 wheel)	ASTM D3884-01	-0,19 g/1000 circle
Abrasion resistance	ISO 9352	-0,25 g/1000 circle

| EN ISO 26987 | ASTM F925-02 | EN 20105 B02

Anti bacterial and fungicid treatment graboSAN

grade 6

| Easy Care

7 year

hot or cold welding



EASYCARE

ECOSAFE



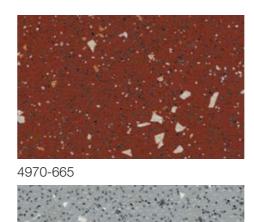




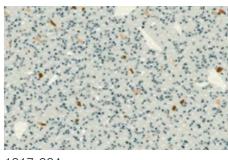


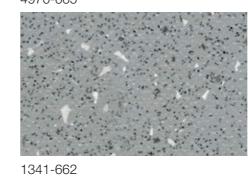




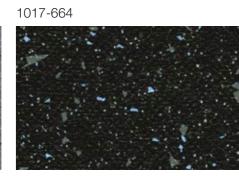


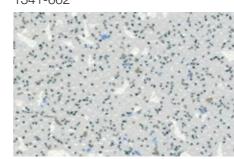


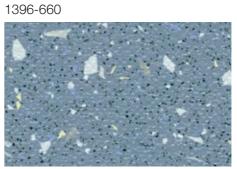












1991-666

1204-663 6123-661

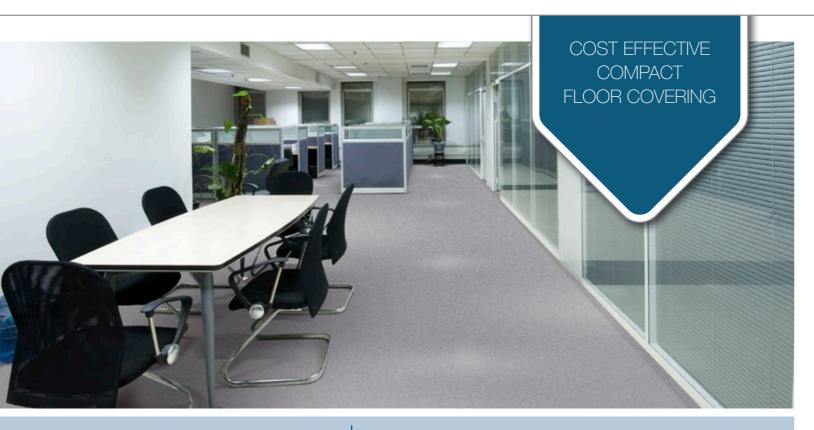
ECOSAFE

DIAMOND STANDART

DIAMOND STANDART EVOLUTION



STANDART



PERFORMANCE, FEATURES & BENEFITS

2/4 meter widths, cost effective, Broad color range, Great patterns, High residual indentation, Dimensionally stable, Anti-bacterial, Antistatic, 10 year warranty

RECOMMENDED USAGE

Education | Healthcare | Retail | Hospitality Offices

CONSTRUCTION



Wear layer
Design
Compact layer
Glass fibre reinforcement
Back layer

DESCRIPTION

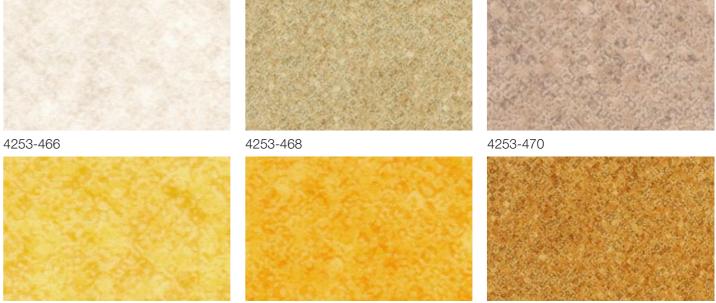
Construction		compact heterogeneous
Total thickness	EN ISO 24346	2,0 mm
Wear layer thickness	EN ISO 24340	0,7 mm
Width of roll	EN ISO 24341	2/4 m
Length of roll	EN ISO 24341	20 lm
Total weight	EN ISO 23997	2,2 kg/m ²

CLASSIFICATION

European classification | EN 685 | class: 34/43

PERFORMANCE

I LI II OI IIII II IOL		
Abrasion group	EN 660-1	ΙT
Residual indention	EN ISO 24343	max. 0,1 mm
Dimensional stability	EN ISO 23999	max. 0,2 %
Fire resistance	EN 13501-1	class: Bfl-s1
	DIN 4102/ÖNORM	class: B1
	Gost 30402-94	class: G1
Slip resistance	DIN 51130	R9
	EN 13893	class: DS
Electrical resistance	EN 1815	< 2 kV
	EN 1081	≤ 10 ⁹ Ω
Chemical resistance	EN ISO 26987	 ✓
Bacterial resistance	EN ISO846:1999	 ✓
Light fastness	EN 20105 B02	grade 6
Castor chair resistance	EN ISO 4918	 ✓
Anti bacterial and fungicid trea	atment	graboSAN
Seaming methot		hot or cold welding
Warranty		10 year





DIAMOND STANDART

OLUTION NATURAL











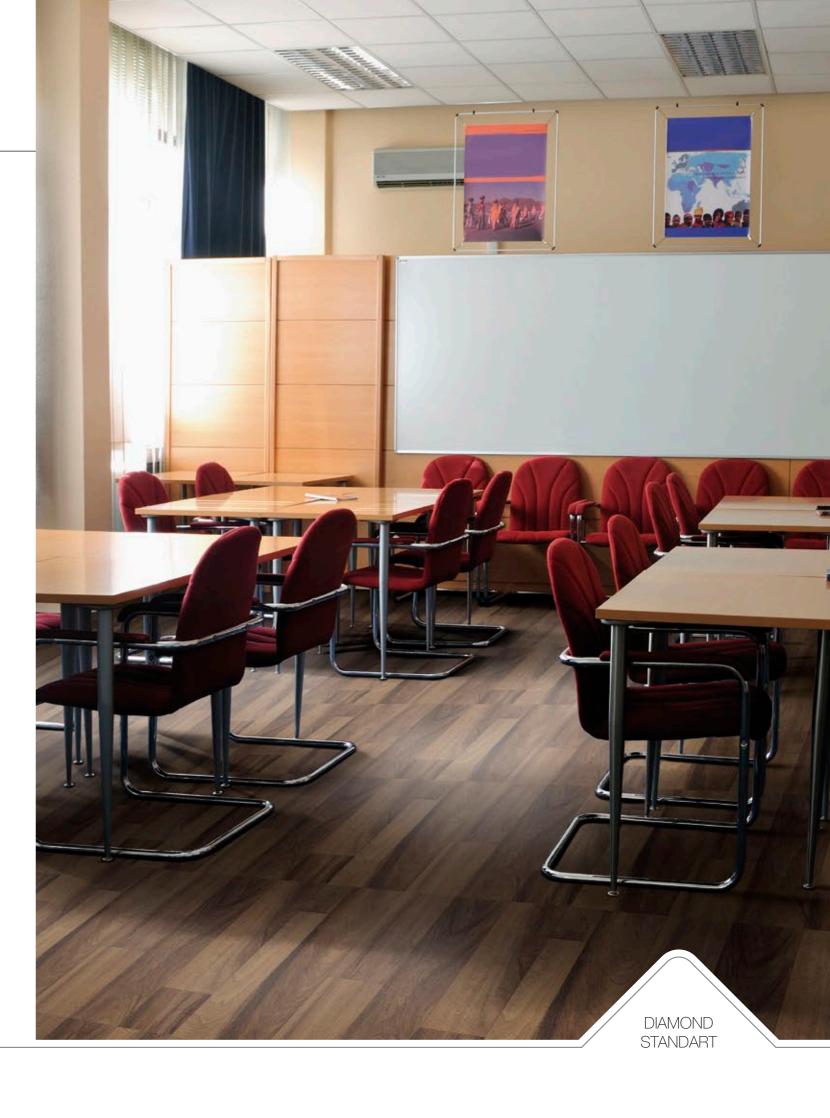
4181-468





4159-472





DIAMOND STANDART TECH METAL



DIAMOND STANDART



STANDART





DIAMOND STANDART

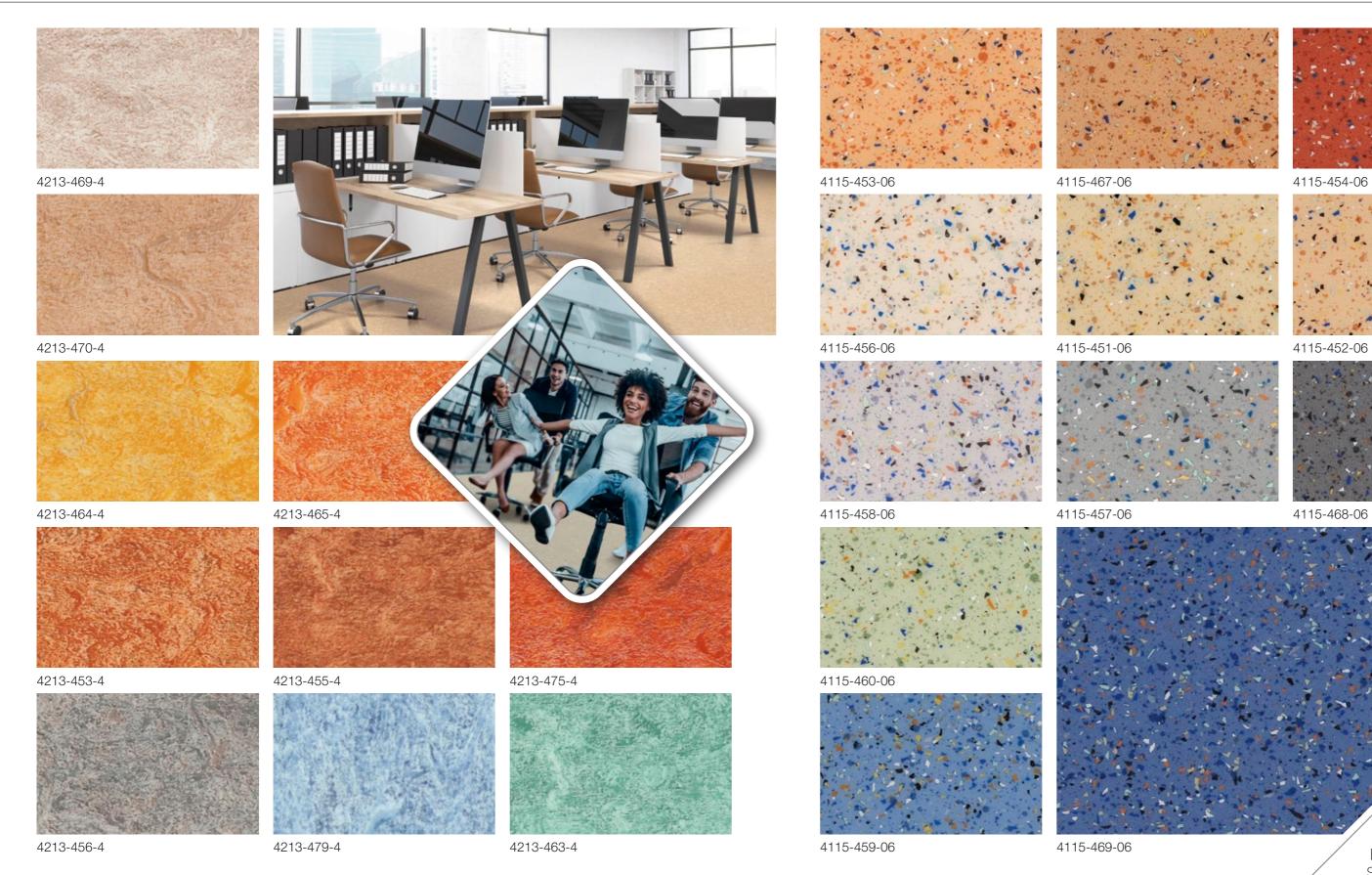
FORTE



DIAMOND STANDART PLAZA



DIAMOND STANDART





AURA

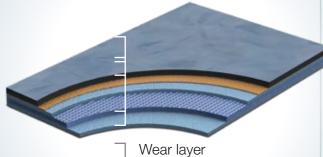
LIGHT COMMERCIAL VINYL FLOOR COVERING



PERFORMANCE, FEATURES & BENEFITS

2/4 meter widths, cost effective, Broad color range, Great patterns, High residual indentation, Dimensionally stable, Anti-bacterial, Antistatic, 10 year warranty

RECOMMENDED USAGE Kindergartens | Rooms | Halls | Kitchens CONSTRUCTION



Design
Glass fibre reinforcement

Foam layer

DESCRIPTION

Construction		heterogeneous
Total thickness	EN ISO 24346	2,0 mm
Wear layer thickness	EN ISO 24340	0,4 mm
Width of roll	EN ISO 24341	2 4 m
Standard length of rolls	EN ISO 24341	25 lm
Normal length of rolls	EN ISO 24341	18-27 lm
Total weight	EN ISO 23997	1,8 kg/m²

CLASSIFICATION

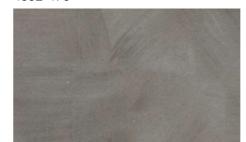
Classification | EN 685 | class: 23/32/41

PERFORMANCE

	Abrasion group	EN 660-1	T
	Residual indention	EN ISO 24343	max. 0,2 mm
,	Dimensional stability	EN ISO 23999	max. 0,2 %
ļ	Fire resistance	EN 13501-1	class: Bfl-s1
	Slip resistance	DIN 51130	R9
		EN 13893	class: DS
	Electrical resistance	EN 1815	< 2 kV
	Chemical resistance	EN ISO 26987	 √
	Bacterial resistance	EN ISO846:1999	 √
	Light fastness	EN 20105 B02	grade 6
	Castor chair resistance	EN ISO 4918	 ✓
	Anti bacterial and fungicid treatment		graboSAN
	Seaming methot		hot or cold welding
	Warranty		7 year







4592-472



4592-465



4592-452

4592-458

4592-454



4592-467



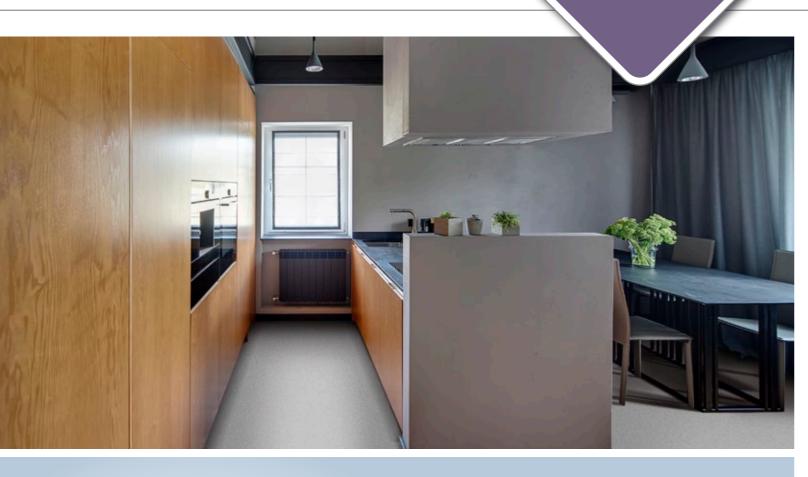


4592-451



_____/ AURA

LIGHT COMMERCIAL VINYL FLOOR COVERING



Grabo TOP Range vinyl floorcovering due to its high technical performance is suitable product for the heavy duty residential applications and for moderate traffic public areas as well. This floor provides excellent foot comfort.

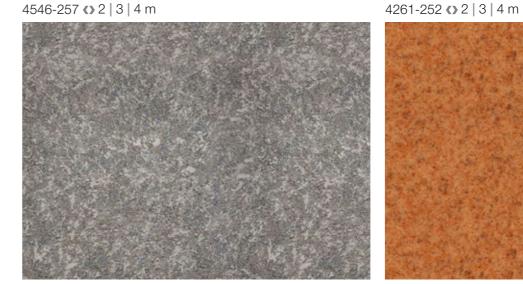






4546-259 **()** 2 | 3 | 4 m





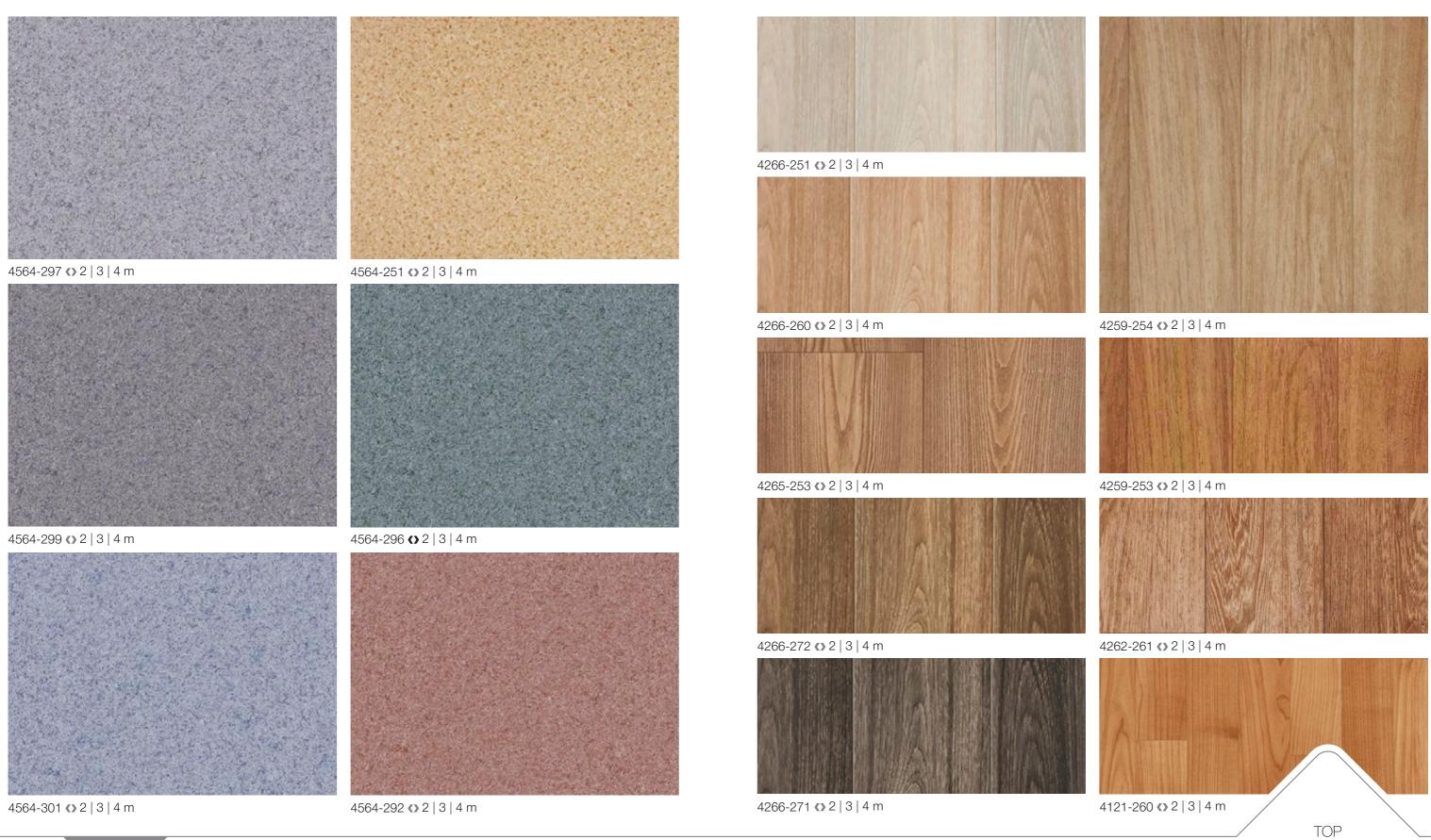


TOP

4261-257 **()** 2 | 3 | 4 m

TOP METAL

TOP NATURAL



ASTRAL

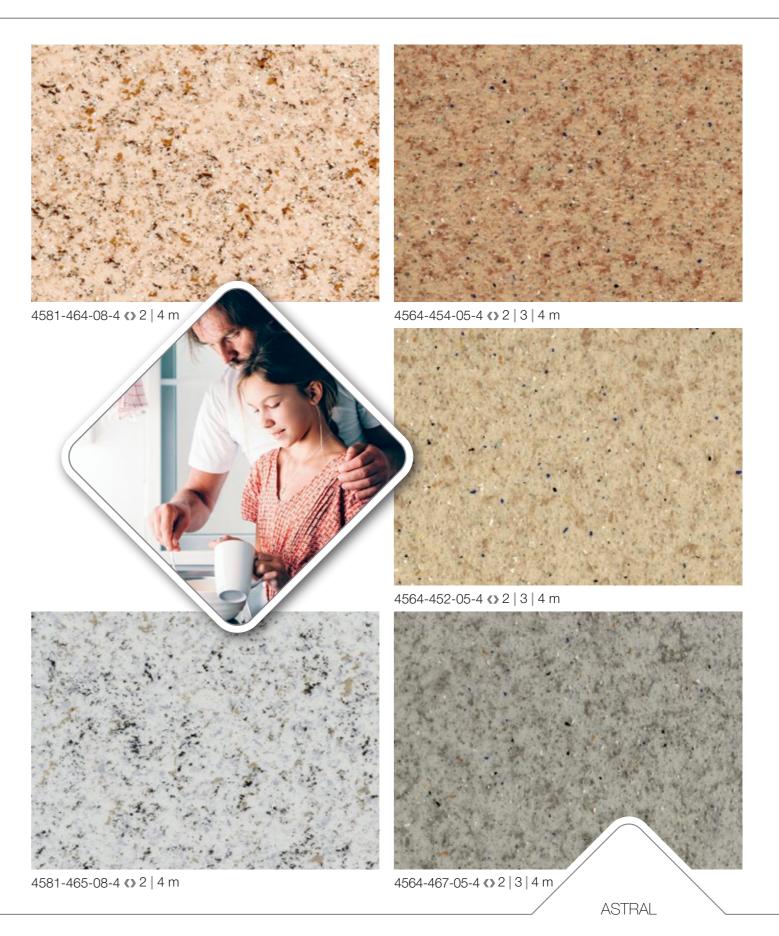
LIGHT COMMERCIAL VINYL FLOOR COVERING

ASTRAL CHIPS



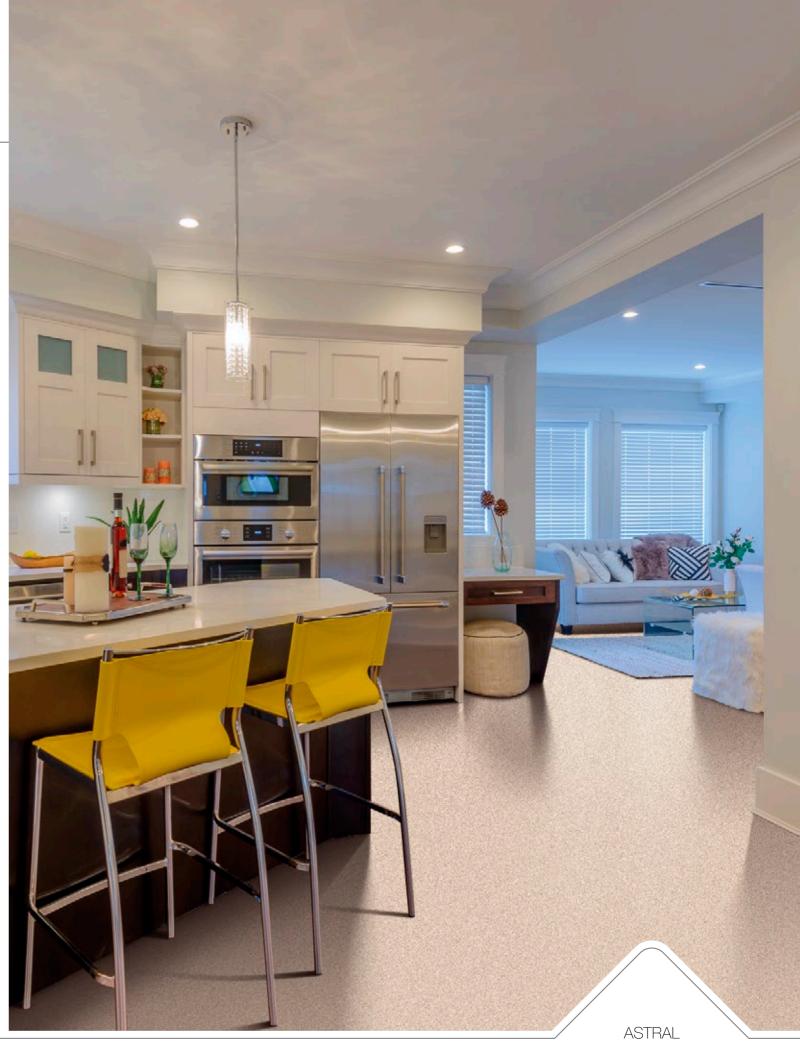
Grabo ASTRAL Family has excellent technical characters witch are associated with a design surplus. We offer this product to modern homes, offices, shops and educational buildings.





ASTRAL COLOR





ASTRAL NATURAL



4235-462-5 **()** 2 | 3 | 4 m



4263-452-5 **()** 2 | 3 | 4 m



4231-462-5 🗘 2 | 3 | 4 m



4235-465-5 **()** 2 | 3 | 4 m



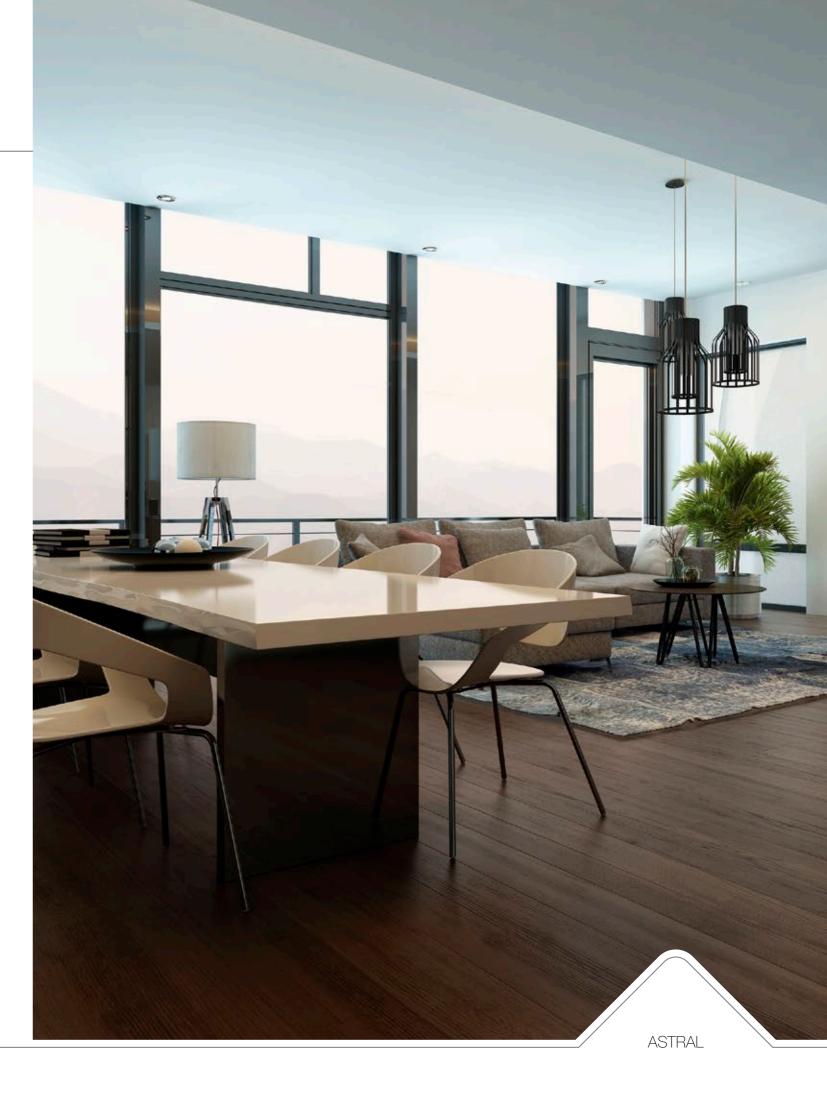
4235-463-5 **()** 2 | 3 | 4 m



4262-453-5 🗘 2 | 3 | 4 m



4266-454-5 **()** 2 | 3 | 4 m



SOUNDTEX 5.0

LIGHT COMMERCIAL VINYL FLOOR COVERING

SOUNDTEX 5.0 MARBLE



Grabo SOUNDTEX 5.0 floorings combine good technical characteristics with extra design features. The product ensures excellent residual indentation, good comfort feeling, and thanks to the non-woven backing it can be installed without glue, which allows easier and quicker installation, especially in renovation projects.

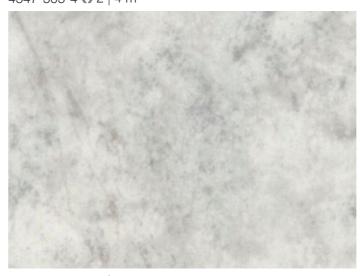


Construction | heterogeneous 3,2 mm | EN ISO 24340 0,5 mm Wear laver thickness | EN ISO 24341 2 | 3 | 4 m Width of roll Standard length of rolls | EN ISO 24341 25 lm Normal length of rolls | EN ISO 24341 18-27 lm 2,2 kg/m² Total weight | EN ISO 23997 CLASSIFICATION | EN 685 class: 23/33/42 PERFORMANCE Residual indention | EN ISO 24343 max. 0,2 mm | EN ISO 23999 I max. 0.2 % Dimensional stability class: Cfl-s1 Fire resistance EN 13501-1 class: R9 Slip resistance Light fastness | EN 20105 B02 grade 6 MSZ EN 660-1 Abrasion group 1 Castor chair resistance | EN ISO 4918 7 year



4547-505-4 (2 | 4 m











SOUNDTEX 5.0

4261-451-3 (> 2 | 4 m 4547-509 (> 2 | 4 m

SOUNDTEX 5.0 NATURAL











SOUNDTEX 5.0

4235-469-5 **3** 2 | 4 m

4235-456-5 **()** 2 | 4 m



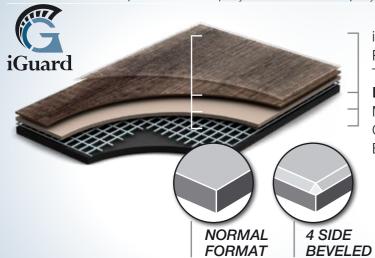
LUXURY VINYL TILE

PLANKIT | DOMINO | ROBUST | IDEAL

LUXURY
VINYL TILE FLOORING
FOR COMMERCIAL
AND DOMESTIC
USE

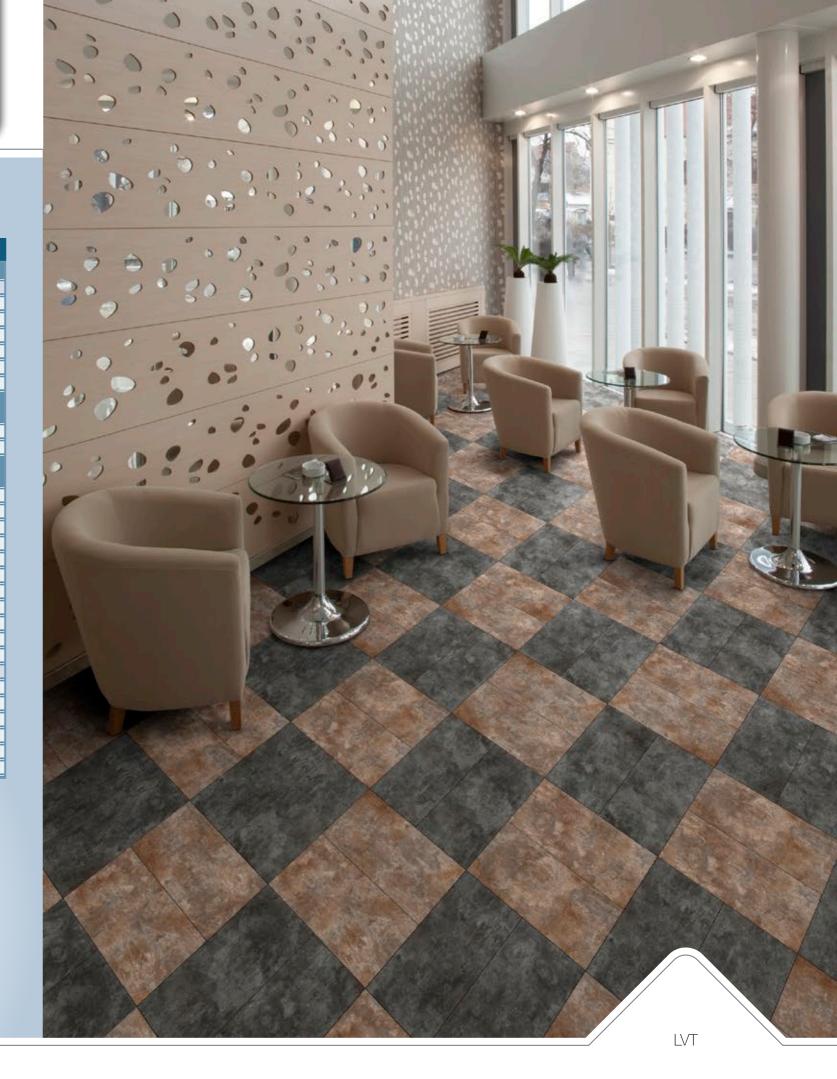
The Grabo LVT floorings are inspired by nature, manufactured with phthalate free technology and provides an environmentally friendly flooring solution for the users.

				WITH THE MINIMUM QUANTITY OF 2 PALETTS/DESIGN.			
DESCRIPTION		PlankIT	Domino	Robust	Ideal		
Construction		Luxury Vinyl Tile with iGua	ard Surface				
Plank size wood	EN ISO 24346	185×1220 mm	185×1220 mm	185×1220 mm	185×1220 mm		
	EN ISO 24346	158×950 mm*	158×950 mm*	158×950 mm	158×950 mm		
Plank size stone	EN ISO 24346	305×610 mm	305×610 mm	305×610 mm	305×610 mm		
Total thickness	EN ISO 24346	2,5 mm	2,3 mm	3,0 mm	2,7 mm		
Wear layer thickness	EN ISO 24340	0,55 mm	0,3 mm	1,0 mm	0,7 mm		
Total weight	EN ISO 23997	3,8 kg/m ²	3,4 kg/m ²	4,6 kg/m ²	3,9 kg/m ²		
		*min. order quantity 2 paletts					
CLASSIFICATION							
European classification	EN 685	class: 33/42	class: 23/31	class: 34/43	class: 34/43		
Binder content	EN ISO 10582	Type I.	Type I.	Type I.	Type I.		
PERFORMANCE							
Abrasion group	EN 660-1	ΙT	T	Т	T		
Residual indention	esidual indention EN ISO 24343		max. 0,1 mm	max. 0,1 mm	max. 0,1 mm		
Dimensional stability EN ISO 23999		max. 0,15 %	max. 0,15 %	max. 0,15 %	max. 0,15 %		
Curling EN ISO 23999		max. 2,0 mm	max. 2,0 mm	max. 2,0 mm	max. 2,0 mm		
Fire resistance EN 13501-1		class: Bfl-s1	class: Bfl-s1	class: Bfl-s1	class: Bfl-s1		
Slip resistance	EN 13893	class: DS	class: DS	class: DS	class: DS		
Electrical properties	EN 1815	max. 2 kV / Antistatic	max. 2 kV / Antistatic	max. 2 kV / Antistatic	max. 2 kV / Antistatic		
Chemical resistance	EN ISO 26987	 √	✓	\checkmark	✓		
	ASTM F925	 √	✓	\checkmark	√		
Light fastness	EN 20105 B02	grade 6	grade 6	grade 6	grade 6		
Castor chair resistance	EN ISO 4918	 √	✓	\checkmark	√		
Surface treatment		iGuard PUR Surface / Eas	sy cleaning				
Content of pcp	EN 12673	does not contain	does not contain	does not contain	does not contain		
Formaldehide emission	Formaldehide emission ENV 717-1		E1 (no emission)	E1 (no emission)	E1 (no emission)		
VOC	1	pass	pass	pass	pass		
Warranty	Commercial	10 year	5 year	15 year	12 year		
	Residental	15 year	10 year	20 year	17 year		



iGuard PUR
Protective coating
Transparent wear layer
Design printed layer
Middle layer
Glass fibre
Back layer

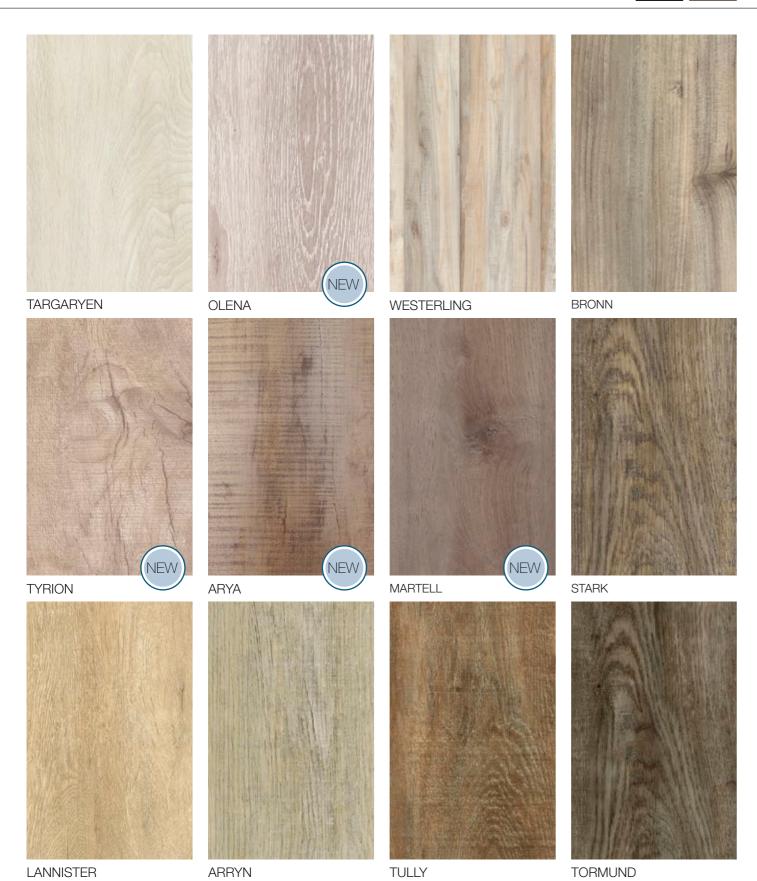
PLANK-IT $\begin{array}{c|c}
\hline
 & 2,5 \\
\hline
 & 0,55 \\
\hline
 & 0,55 \\
\hline
 & 0,3 \\
\hline
 & 0,3 \\
\hline
 & 0,3 \\
\hline
 & 0,7 \\
 & 0,7 \\
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 & 0,7 \\
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PLANK-/TWOOD











PLANK-IT

PLANK-/TWOOD























DAVOS

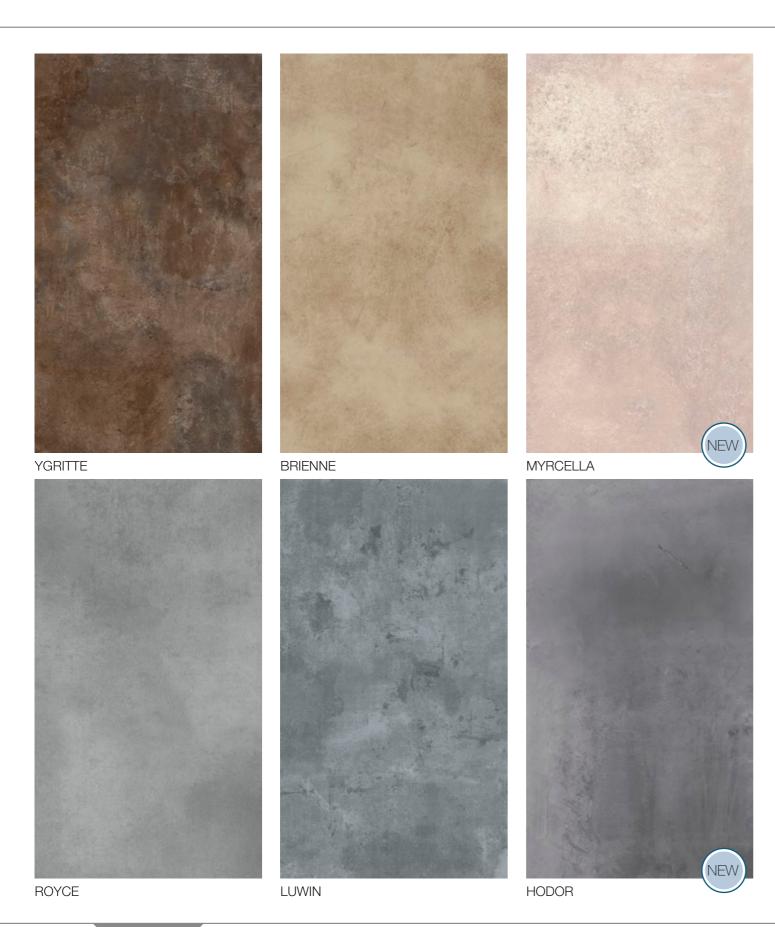








PLANK-IT STONE









84 | 85

PLANK-ITJAZZ





DOMNO WOOD



















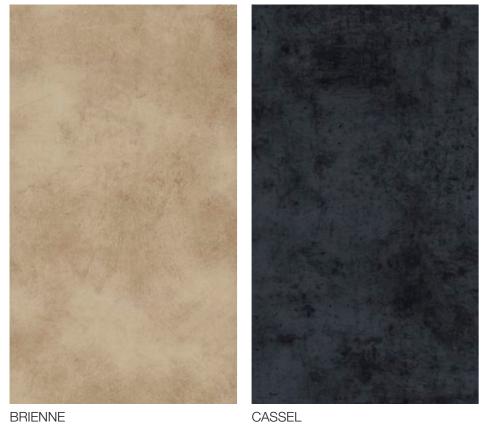




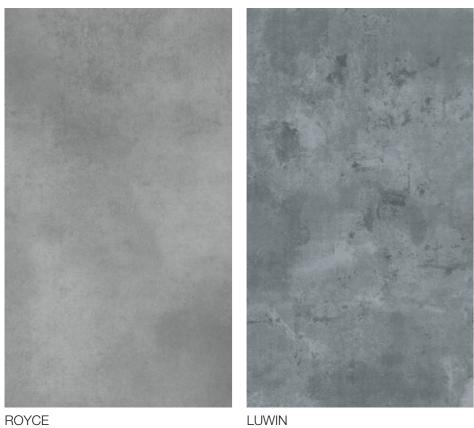


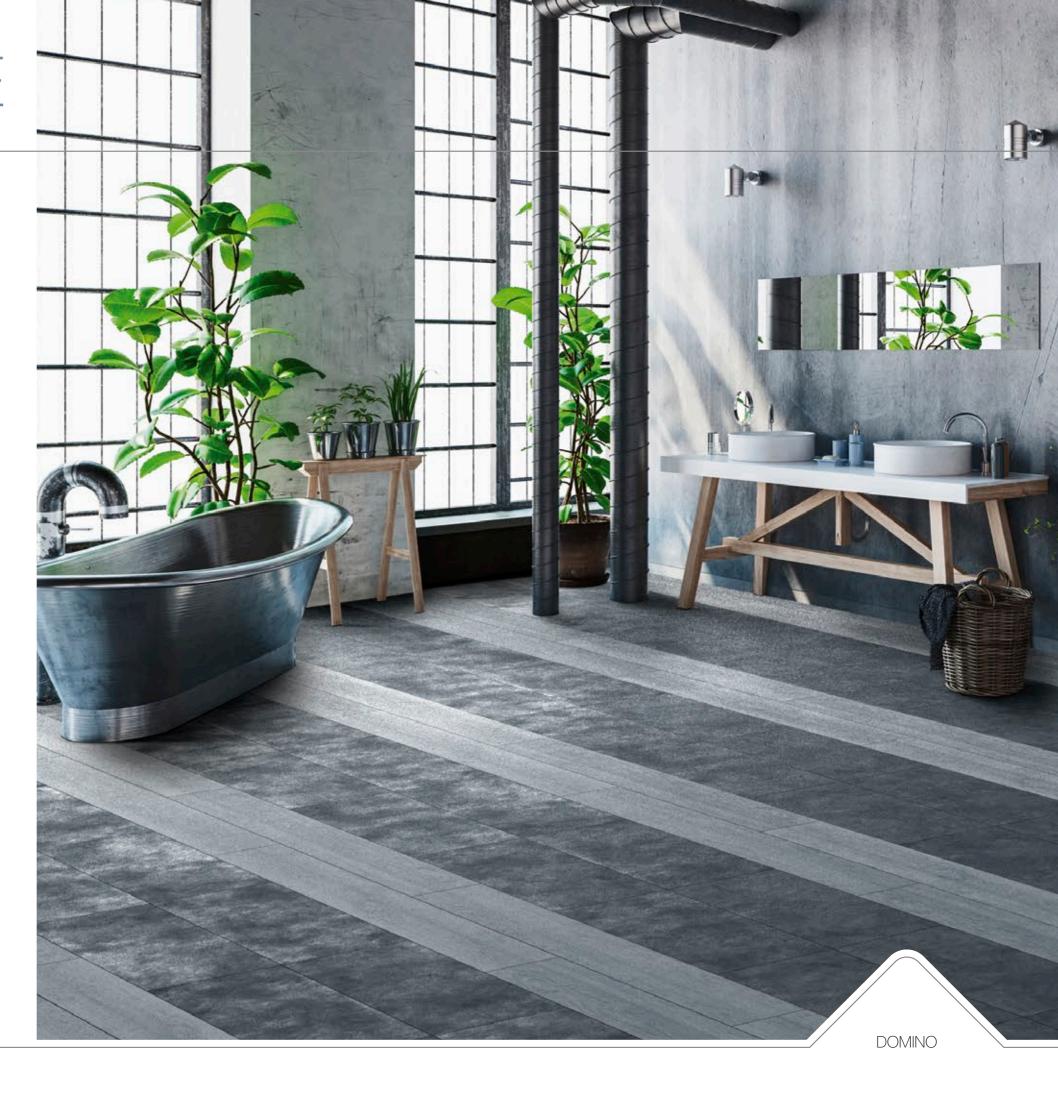


DOMINO STONE



BRIENNE







MURAVYL

HIGH PERFORMANCE FLEXIBLE WALL COVERING





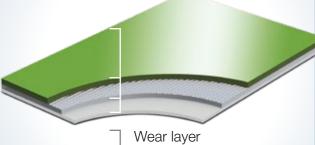
PERFORMANCE, FEATURES & BENEFITS

2 m width, Excellent fire resistance, Dimensionally stable, Anti-bacterial, Antistatic

RECOMMENDED USAGE

Education | Healthcare | Retail | Hospitality Offices

CONSTRUCTION



Wear layer Glass fibre reinforcement Compact layer

DESCRIPTION

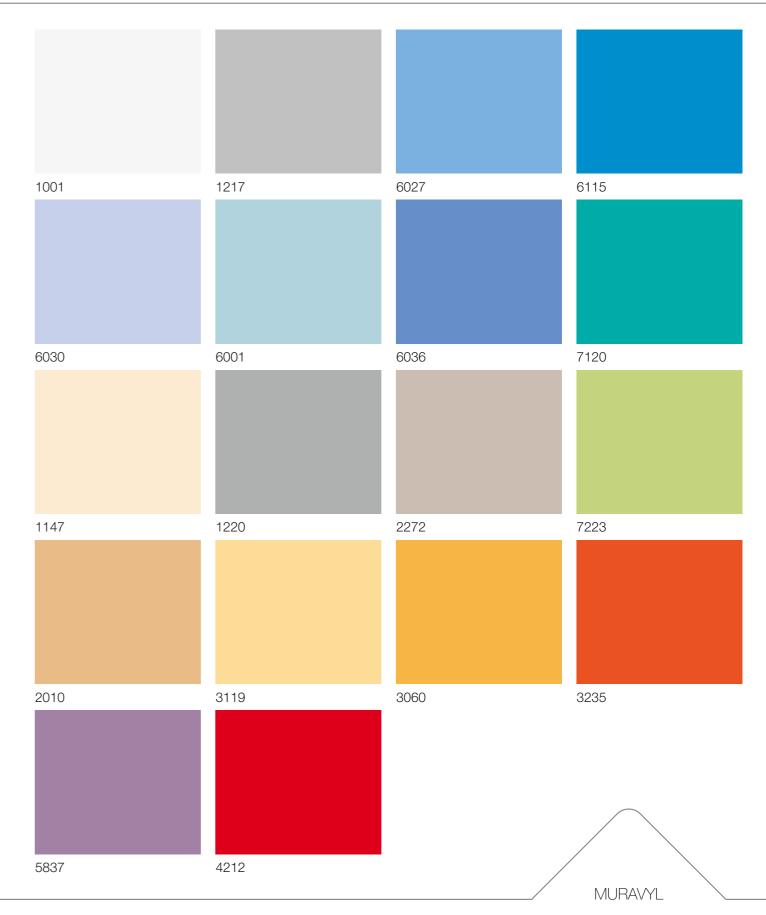
Construction		compact heterogeneous
Total thickness	EN ISO 24346	1,5 mm
Wear layer thickness	EN ISO 24340	0,5 mm
Width of roll	EN ISO 24341	2 m
Length of roll	EN ISO 24341	25 lm
Total weight	EN ISO 23997	1,4 kg/m ²

CLASSIFICATION

Product specification	EN 649	✓
Residual indentation	EN 433	max. 0.1 mm
Dimensional stability	EN ISO 23999	max. 0,2 %
Light fastness	EN ISO 105-B02	grade 6

PERFORMANCE

Abrasion group	MSZ EN 660-1	T			
Fire resistance	EN 13501-1	class: B-s2, d0			
Chemical resistance	EN ISO 26987	I ✓			
Anti bacterial and fungicio	d treatment	graboSAN			
Seaming methot	EN ISO846:1999	heat or cold weld			



GRABO'S RECOMMENDATION

			Homogeneous vinyl sheet floorings			Heterogeneous vinyl sheet floorings						
		Fortis	Fortis Fitt	Triumph	Conducto S	Silver Knight Diamond Tech	Silver Knight Acoustic 7	Acoustic 7	Acoustic 43 UNI	Acoustic Pro		
	Entrance area											
Healthcare	Reception/lobby											
	Corridors											
	Administration offices											
	Intensive care											
	Treatment rooms											
	Waiting rooms											
	Patient rooms											
	Laboratories											
	Operating theatre											
	Loundry											
	Storage rooms											
	Ramps/elevators											
	Bathroom/toilet											
=												
	Entrance area											
	Corridors											
	Staff rooms											
	Conference rooms											
	Classrooms											
c	Storage rooms											
Education	Language studios											
Edu	Libraries											
	Laboratories											
	Multipurpose rooms/halls											
	Dormitory rooms											
	Dining rooms											
	Bathroom/toilet											
	Ramps elevators											
	Entrance area											
	Reception/lobby											
un.	Meeting/conference rooms											
Offices	Offices											
	Corridors											
	Bathroom/toilet											
	Canteen/cafeteria											
	Entrance area											
	Department stores sales floors											
Retail	Shops											
ď	Food service areas											
	Warhouses											
	Entrance											
	Reception/lobby											
. ≥	Restaurant/bar											
Hospitality	Kitchen											
Hos	Cinema, theatre, casino											
	Corridors											
	Bedrooms											
	Bathroom/toilet											
	Airport hall/lounge											
eas	Elevators											
Other public areas	Bus terminals											
qnd	Laboratories											
	Small parts assembly halls											

	recommended (flooring suitable for the space)
	highly recommended (the best flooring choices for the space

	Heter	ogeneous vinyl	sheet floorings			Li	ght commercial	sheet flooring	heet flooring		LVT			Wall covering
GraboSafe	GraboSafe	EcoSafe	D. Standart		D. Standart Plaza, Forte,	Aura	Тор	Astral	SoundTex 5.0	Plank-IT	Domino	Robust	Ideal	Muravyl
Silver Knight	20 JSK		Evolution	Tech	Talent				3.0					

STORAGE AND CARE GUIDE

The Grabo commercial vinyl floorings should be stored in the upright position or on racks in their original packaging in dry, clean and well ventilated premises, Outdoor storage under cover is not allowed. Ensure the storing temperature between +10°C and +35°C. Avoid storage in premises with high moisture content and/or condensation. The relative moisture content in the storing premises should be within 40-75%

The GraboWeld welding rod used for heat welding should be stored under the same conditions as the flooring sheets, in its original packaging that should not be opened before use

If stored in heated premises, the PVC products should be protected from heat. The distance between the heat source and the stored products should be at least 1 meter.

The products should be protected from direct sunlight and artificial light with high UV levels.

The product should not be exposed to strain, pressure or other load during storing in order to prevent permanent deformation and cracking.

Appropriate storing conditions and adequate handling of the commercial PVC floorings will help to retain their properties till the end of their life-time. In case of extended storing (for more that one year) an adhesion test is recommended prior to the installation of the product. Only the rolls from a similar batch and having the same lot number should be used for the same premises. Prior to installation of the flooring visually inspect the sub-floor for general appearance, color and surface condition. The manufacturer does not assume responsibility for any additional labor or cost expenses resulting from evident surface defects.

INSTALLATION

SUB-FLOOR REQUIREMENTS

The contractor performing the installation of the Grabo commercial vinyl floorings must ensure the proper quality of the sub-floor. The sub-floor must be clean, smooth, permanently dry, free of cracks and any contaminants that might affect adhesion (e.g. paint, oil, grease, plaster or adhesive), sufficiently hard and resistant to pressure and tension strain. In case of concrete and sand/cement screed sub-floors, their moisture content should not exceed 2.5%. If the sub-floor moisture content exceeds 2.5%, but does not reach 5%, the damp proof membrane Grabo Vaporex should be installed underneath the PVC flooring system. If the sub-floor moisture content exceeds 5%, do not start installation before it goes below 5% or install a damp proof membrane underneath the commercial PVC flooring system.

It is recommended to check the condition of the sub-floor by performing the required tests and measurements prior to installation of the flooring. Check

the surface level (using a ruler or a measuring wedge), as well as the absence of cracks, the moisture content (using a hydrometer) and the surface hardness (scratch test). Document the obtained test results. The sub-floor temperature directly before installation of the flooring should be between +15°C and +30°C.

Preparation of the Sub-floor (New or Existing Bases)

Prepare the new concrete base by stone or power grinding and vacuum cleaning. In case of new gypsum based screed sub-floors remove the loose upper gypsum layer by grinding. In case of existing carpet and rubber flooring, upon removing the old carpet or rubber sheets clean the surface from traces of paint and adhesive, then patch or fill the cracks and hollows, if any, before installing the new floor covering. If the new flooring is to be installed on top of a PVC base or ceramic tiles, thoroughly clean the surface by abrasion and vacuuming, fill the joints with a suitable repair composition and apply an approved primer compound to the entire surface.

If the new flooring is to be installed over existing wooden or laminated floors, confirm that the boards are securely fixed and properly dried. Firmly nail any loose elements to the joists and replace any boards with moisture content higher than required. The surface then should be sanded and cleaned from dust and treated with an appropriate primer compound. These sub-floor preparation and floor laving instructions assume the use of Henkel Thomsit products which can as well be replaced by products of any other brand with similar technical properties. For the pre-treatment of the concrete base use dispersion primer Thomsit R 777 diluted with water by half; apply the primer without dilution on gypsum screed base with the help of a sponge roller and leave to dry for 24-48 hours. Use primer Thomsit R 766 diluted with water by half to pre-treat hard, dense, impervious surfaces. The primer will trap the remaining dust, close the pores in the concrete and make a contact surface for the smoothing compound. After the primer has been completely absorbed, the surface needs to be leveled using a suitable smoothing compound (e.g. self-leveling compound Thomsit). When choosing the self-leveling compound, consider the expected traffic load and the time allotted for the installation of the flooring. Thoroughly mix the powder with water according to manufacturer's instructions and then spread the smooth paste on the surface with a flat trowel. Occasional air bubbles should be removed with the help of a spiked roller. After the surface has completely dried up, it should be smooth-finished and cleaned from dust.

The Grabo commercial vinyl floorings are compatible with underfloor heating. If underfloor heating is used on the site, the heating system must be switched on at least four weeks before installation of the new flooring. Switch off the underfloor heating 24 hours before commencement of work and keep

it turned off till installation of the PVC flooring has been completed. Wait 48 hours after the flooring has been installed and then switch on the heating again. Raise the temperature steadily till it reaches its usual value over approximately 5 days. While using underfloor heating, the temperature of the sub-floor must not exceed 28°C.

In case of installing Grabo Luxury Vinyl Tiles, the suitable subfloor-types of well prepared, levelled plain subfloors:

- concrete / cement
- anhydrite
- plywood
- stone, terrazzo, ceramic
- solid PVC

Do not install over

- carpet
- cushioned, very soft vinvl
- · wooden parquet
- · laminate or other floating floor
- · asphalt and bitumen

INSTALLATION OF GRABO COMMERCIAL VINYL FLOORINGS

While the measured sub-floor moisture content stays within 2.5-5CM%, the use of damp proof membrane Grabo Vaporex is mandatory. If the measured subfloor moisture content is below 2.5%, the use of damp proof membrane Grabo Vaporex with Grabo commercial vinyl floorings can be waived. The use of Grabo Vaporex underlay is advisable in the case of existing concrete bases, vinyl floorings and metal bases and mandatory for asphalt sub-floors. Installation of Grabo Commercial Vinyl Floorings with Grabo Vaporex:

The underlay must be unrolled and tempered on the site at a temperature of at least 18°C for one day prior to installation. The Grabo Vaporex underlay should be placed on the even, dry and clean sub-floor prepared according to instructions, with the pattern side facing down. Fold up the edges near the walls for at least 10 centimeters and trim accordingly. Adjust the underlay sheets edge-to edge and then fasten the edges on the top (of the plain side) with a 5 cm wide vinyl adhesive tape. The underlay should lie flat on the surface. While Grabo Vaporex can be laid both lengthwise and crosswise, the crosswise installation is advised. Make sure the underlay joints do not fall together with the seams between the flooring sheets installed on top of the underlay. The Grabo commercial vinyl floorings should be glued to the underlay using a dispersion contact adhesive (e.g. Thomsit K 188E). Spread the adhesive evenly on the underlay surface using an A4 notched trowel, maintaining the spread rate of approximately 200 g/m2. Leave the adhesive to evaporate completely till it changes from opaque to transparent yellow. After approximately 60-90 minutes test it with your finger, and

if not anymore tacky, the adhesive bed is ready to accept the flooring sheets. Further steps (e.g. welding) are the same as described below for the installation of Grabo commercial vinyl floorings without Grabo Vaporex underlay.

Installation of Grabo Commercial Vinyl Floorings without Grabo Vaporex: The flooring must be unrolled and tempered on the site at a temperature of at least 18°C for one day prior to installation. Use the flooring rolls from a similar batch and having the same lot number for installation in the same premises. It is advisable to open the rolls in the ascending order of their lot numbers. When laying the flooring with a wood imitating pattern the subsequent strips should point in the same direction, otherwise lay every next strip with the pattern pointing in the reverse direction compared to the previous row. The arrow on the back side of the roll shows the correct laying direction. After tempering the unrolled floor covering trim the sheets to size on both ends with a 5 cm allowance, then place them on the sub-floor and align precisely edge-to edge. The rolls should be installed lengthwise, following the direction of the sunlight as it falls on the floor. Fold back the flooring strips to half of their length before applying the adhesive.

We recommend using solvent-free low emission dispersion adhesives with Grabo commercial vinvl floorings. Two adhering methods can be advised based on wet set adhesives and contact adhesives.

In case of hygroscopic sub-floors (concrete, sand/cement screed) the use of dispersion or emulsion acrylic adhesive is recommended. The adhesive should be stored in frost-free environment and tempered on the site at a temperature of at least 18°C for one day prior to installation. Stir up the adhesive thoroughly

Recommended adhesives: Henkel Thomsit UK 400, Mapei Ultra/Bond ECO 350. F-Ball F/44

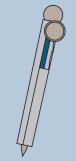
Spread the adhesive on the sub-floor using an A3 or a B1 notched trowel, maintaining the spread rate of approximately 300-400 g/m2. Be sure to check the condition of the notched strips regularly and re-cut as necessary. Always follow the adhesive manufacturer's instructions regarding the optimal quantity, the open time and the drying time of the adhesive. A shorter open time will lead to the appearance of air bubbles, whereas a longer open time will reduce the bonding capacity.

CONTACT GLUING

The use of contact adhesives can be recommended for both hygroscopic sub-floors (concrete, sand/cement screed) and impervious (PVC) substrates. Only contact adhesives should be used for impervious sub-floors.

TOOLS AND EQUIPMENTS

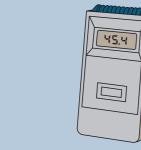
SUB-FLOOR PREPARATION



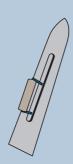
Sub-floor hardness



Equipment for structural moisture analysis (Hydromat CM-B or HB30)



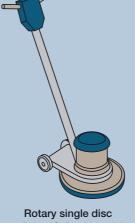
Equipment for measuring temperature and relative humidity (Digital Thermo-Hygrometer LVT10)



Flat trowel



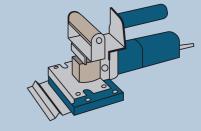
Hand mixer CX10 with suitable mixing blades



polisher Columbus with accessories



cleaner Janvac 1600



Tools for stripping the existing floor covering (Compact stripper, Cosmo stripper)



Recommended adhesive: pressure sensitive, water based acrylate glue, like Thomsit K 188E, Uzin KE 2000S, or other brand equivalent with these. Apply the adhesive to the sub-floor and spread evenly using an A2 or A4 trowel and maintaining the spread rate of approximately 200–250 g/m2. Leave the adhesive to evaporate completely till it changes color from opaque to transparent yellow. After approximately 60–90 minutes test it with your finger, and if the adhesive is not tacky anymore, you can start the laying.

IN CASE OF VINYL SHEET FLOOR COVERINGS

Start to position the folded back flooring sheet onto the adhesive bed. To ensure good bonding, thoroughly smooth the flooring sheet, working from the center outwards, with the help of a manual cork rubber, confirming no air bubbles are trapped underneath. Finally roll the installed flooring using a 50–60 kg roller. Repeat the sequence to install the other half of the flooring sheet. In order to make site formed coved skirting, draw a line on the wall to mark the height the coving will reach and fit the capping strip to the wall using contact adhesive. Attach the cove former in a similar way: using a brush, apply contact adhesive to the back of the cove former and to the wall up to the capping strip and leave both to dry. When completely dry, firmly push the vinyl with the cove former into place and tuck the top edge into the capping strip.

IN CASE OF LVT

LVT planks are to be installed generally parallel to the main light source, usually this is the longer side. Carefully determine where to begin tile or plank installation. It is customary to centre rooms and hallways so borders are not less than half a tile or plank. In hallways and small places it is simpler to work lengthwise from one end using a centre reference line. Make sure cut edges are always against the wall.

In case of simple surface pattern, measure the size of the room and mark the straight starting line of the installation. The distance of the starting line from the deepest part of the wall should be minimum the width of the plank minus 2-3 cm, or multiple of the width of the plank minus 2-3 cm. Coat the adhesive on the subfloor with the spatula, coated surface should be max. 3-4 rows at the same time and wait until the adhesive will be dry. Make finger test! Follow always the instructions of the glue manufacturer. LVT should be installed by offsetting method. Starting on the starting line, place the LVT pieces side by side, glue them on the subfloor, and closely fit the edges of the planks to each other. If the last piece of LVT is longer then needed, mark and cut the plank installing the cut end next to the wall. The remainder of the LVT which has been cut off can be used to start the next row as long as it is minimum 20 cm. If the last piece in the row is a full plank, start the next row with a cut piece which has minimum 20 cm length, ideal case is to make half cut piece. Against the wall install cut edge piece. Place each LVT piece tight, against the adjoining element, and well embed in the adhesive. The next rows can be started with the pieces cut from the previous rows, minimum size of these pieces are 20 cm. After gluing roll down well the planks with a steel roller as well (weight 50-70 kg) in all directions, forward and back and diagonally. Prepare the skirting at the walls. Skirting can be made from the same LVT plank or from other plastic or metallic skirting, which is in harmony with the design of LVT. Use silicone seals between the joints of LVT and skirtina.

WELDING

Welding (in case of sheet vinyl floor coverings) can be performed after no less than 24–48 hours upon installation, depending on the kind of the applied adhesive and the adhesive manufacturer's instructions.

HEAT WELDING

Application of heat welding is mandatory for wet areas and premises with underfloor heating. When the flooring is ready, the joints should be grooved to appropriate depth and width either manually, or with a power tool. For foam backed vinyl floorings the joints should be grooved to the depth of the upper (outer) layer; for firm dense surfaces the joints should be grooved to the 2/3 of the profile; the recommended groove width is 2–3 mm. The joints should be thoroughly cleaned from any debris. Use ø 4 mm GraboWeld welding rod for heat welding of the commercial vinyl floorings. Set the working temperature of the heat welding gun to approximately 300–400 °C. The welding can be carried out with the help of an automatic appliance or with a hand-operated welding set. Before starting the procedure, trial welding is recommended in order to set the optimal welding temperature and speed. After the welding seam has cooled down, remove the excessive welding rod in two steps. First cut off the top half of the welding rod using a quarter moon knife. After the remaining weld has cooled to the room temperature, perform the final trim.

HEAT WELDING IN THE CORNERS

From the perspective of the flooring external and internal corners are distinguished. Fitting of welds in internal corners can be performed in two ways: either by precision cutting and subsequent silicon filling of the seam, or by "halfrod" welding. In the latter case, the welding rod cut-offs from the first trim can be used to fill in the vertical seams by pressing them into the vertical grooves with the rounded side down and then applying heat coagulation to the joints. The excess welding rod should be trimmed off. It is recommended to pre-heat the coves before welding the joints. Precision cutting is important for external corners as well. Corner welding should be performed with a welding rod.

COLD WELDING

Cold welding is another common technique used for the installation of commercial PVC floorings. This method ensures quick seam closing and is especially suitable for chip floors and all-over surfaces, as it produces an integral seamless covering for large areas.

The cold welding technique consists of four steps:

- Place the PVC flooring strips so as they overlap for approximately 3–5 cm. Cut the sheets lengthwise along a metal rule and remove the cut-off waste from both the top and the bottom layer.
- Center the masking paper tape over the closely cut joints of the PVC strips and press it on tightly with a roller to stop the cold welding paste from sneaking while being filled into the joint.
- Cut through the masking tape simply and firmly along the seam with a circular cutter (or a trapezoid blade).
- 4. Thoroughly shake up the tube with the cold welding paste. Press the nozzle of the cold welding paste tube deeply into the joint with one hand and pull the tube along the joint. Use your other hand to dose the cold welding paste so that an approximately 5 mm wide line appears on the surface of the masking tape. Allow bonding for ten minutes and then remove the masking tape. The result is an almost invisible waterproof seam.

Use Werner Mueller cold welding paste Type A for sealing new PVC floorings and Type C to repair the existing surfaces. Successful cold welding requires the use of the tools and equipment shown in the picture. For details of cold welding technique see your language version of the manufacturer's site: www.mueller-pvc-naht.de

SKIRTING

Plastic skirting is recommended for closing the edges along the walls. If Vaporex damp proof membrane has been used, a 5 mm air gap should be left along the walls during installation of the skirting.

Installation guide to Grabo Muravyl wall covering

The wall surface will be covered by Grabo wall coverings should be clean, dry and dust free. The old wallpaper, old wall covering and old paint should be removed. The holes and hollows should be filled up with gypsum and the unevenness should be diminished. After the gypsum dried out, the surface should be abraded with fine sandpaper and made dust free. The surface should be treated with deep primer, e.g. Henkel "METYLAN". When installing the wall covering, the ideal room temperature is about 18-25°C and the relative humidity is around 50-60%. The installation can be started when the prepared wall (as above) is absolutely dry. The recommended glue type is Henkel Thomsit K 188 E and Uzin KE 2000S or other water based pressure sensitive glue, which has equivalent properties to these brands.

The wall covering should be cut in advance into the required length 24 hours before gluing. We recommend installing the wall coverings on the following way: The wall covering can be installed vertically or horizontally as well.

The glue should be applied with spatula A2 teeth onto the wall. (Consumption of glue is approx. 250-300gr/m²)

Before putting on the wall covering, you should make so called finger-press test on the glue. When no any particle of glue remains on your finger it is the right time to put the covering on the wall. Always follow the instructions of the manufacturer of the glue, keep waiting time according to the description. Put the wall covering cut to size beside each other so that the rolls cover/lap each other in a 2-3 cm wide stripe.

The hanging should be made with the help of the special brush, smoothing roller, rubber roller. The smoothing always should start from up to down direction and from the middle toward the edges. The air bubbles should be perfectly and carefully smoothed out from under the wall covering.

After this you should cut the middle of the lapped 2-3 cm stripe (where the wall stripes meet) with a very sharp knife and with the help of a steel ruler. The cutting should be carried out on that way that the knife should cut both layers. Then the edges of the wall covering slightly should be raised so that the narrow stripes could be peeled off. This process should be made very carefully and slowly, so that there must be only 1 cut stripe. Then we smooth down again the edges (from up to down), and remove the residues of the glue if there is any, with a soft, wet sponge immediately. Should there glue residues remain on the surface of the wall covering you should remove it immediately by a wet, soft sponge.

We recommend cold welding or hot welding process to make the joints waterproof. Welding process can be started 24 hours after gluing.

CLEANING AND MAINTENANCE

ENERAL NOTES

Regular cleaning and maintenance are crucial for the durability and attractive appearance of your flooring. The floor maintenance schedule is primarily determined by the intensity of the traffic load. Routine (daily) cleaning and periodical general maintenance are indispensable for preservation of the long-term appearance and performance of Grabo floor coverings. Apart from the approved maintenance products listed in this guide, other cleansers with similar parameters (chemical formulation and pH-value) are also compatible for use with Grabo commercial vinyl floorings. Do not use cleaning products that could damage the surface, e.g. abrasive cleaners or organic solvent-based detergents. As a general rule, always follow the detergent manufacturers' instructions and contact them for additional details when required. Cleaning and maintenance procedures for Grabo safety floorings are described in a separate user guide.

PREVENTIVE MEASURES

Most of the dirt, grit and moisture that will need to be cleaned from the floor surface arrive from the street. The majority of this soiling can be kept outside by using efficient dirt barrier systems of appropriate size. The maintenance regime depends to a great extent on how efficiently the dirt is stopped at the front door. Another point to consider is the use of high-quality heavy-duty plastic pads ("footies") to be attached to furniture legs to protect the floor from scratching. The newly installed floor covering needs a basic cleaning that should be later repeated between certain periods of use.

BASIC AND PERIODICAL CLEANING BY MACHINE

Remove solid dirt from the surface by sweeping or vacuum-cleaning.

Tools: alkaline cleaning detergent, mono-disc cleaning machine with red pad and damp sweeping equipment.

TECHNOLOGY OF BASIC/PERIODICAL CLEANING

The cleaning solution should be dispersed on a surface of 5-10 m2 area and should be scrubbed after an acting time of 10-15 minutes. Then the cleaning agent should be absorbed, the surface should be rinsed with clean water, and lastly, the water should be absorbed again. The periodical cleaning should be done with a frequency according to the grade of use.

DAILY CLEANING

Remove solid dirt from the surface by sweeping or vacuum-cleaning then make wet cleaning manually or with a mono-disc machine with white pad.

MANUAL WET CLEANING:

Tools: mop, (microfiber mop is the best), damp sweeping equipment, cleaning agent (generally neutral or light alkaline detergent) Cleaning should be performed with the two-bucket method.

MECHANICAL WET CLEANING:

For daily mechanical cleaning use mono-disc cleaning machine with white pad. Use neutral or light alkaline cleaning agent. Never use abrasive products and any material that risks damaging of the surface. Never use rubber caps on furniture legs in order to avoid discoloration of the floor covering.

