



Life Sciences Solutions

Floor and wall coverings
high performance

Gerflor

Cleanroom Requirements

Controlled environments

A clean room is a space in which **particules or molecular contaminants** are mastered and controlled. In addition, **physical parameters** such as temperature, ESD, humidity or pressure can be controlled. These environments are used for electronic, pharmaceutical or medical equipment productions.


Some sectors will need to ensure an environment **free of bacteria, viruses or other micro-organisms**.




High control environment

Floor & wall protection, focus points to manage

 Contamination management

 Resistance to external attacks

 Cleaning and decontamination

 ESD properties

 GMP compliance



Floor and wall solutions

Gerflor works with the best international institutes in order to guarantee these customers optimum performance.



Easy zoning

Cleanroom standards

Gerflor ISO and GMP compliant

Contamination management



ISO 14644-1 specifies the classification of air cleanliness in terms of concentration of airborne particles in cleanrooms and clean zones.

ISO 14644-4 specifies the requirements for the design, construction and start-up of cleanroom facilities.

ISO 14644-8 establishes the classification of air chemical cleanliness (ACC) in cleanrooms and associated controlled environments, in terms of airborne concentrations of specific chemical substances.

ISO 14698 establishes the principles and basic methodology of a formal system of biocontamination control (Formal System) for assessing and controlling biocontamination when cleanroom technology is applied for that purpose.

ISO 22196 specifies a method of evaluating the antibacterial activity of antibacterial-treated plastics, and other non-porous, surfaces of products.

ISO 21702 specifies proper methods for measuring antiviral activity on plastics and other non-porous surfaces of antiviral-treated products against specified viruses.

ISO 846 is a microbiological tests to determine the action of fungi and bacteria on plastics.

Resistance to external attacks



ISO 14644-4 specifies the requirements for the design, construction and start-up of cleanroom facilities.

ISO 14698 establishes the principles and basic methodology of a formal system of biocontamination control (Formal System) for assessing and controlling biocontamination when cleanroom technology is applied for that purpose.

ISO 2812-1 specifies general methods for determining the resistance of an individual-layer or multi-layer system of coating materials to the effects of liquids, other than water, or paste-like products.

Cleaning and decontamination



ISO 8690 Measurement of radioactivity — gamma-ray and beta-emitting radionuclides — Test method to assess the ease of decontamination of surface materials.

ISO 14644-9 establishes the classification of cleanliness levels on solid surfaces by particle concentration in cleanrooms and associated controlled environment applications.

ISO 14698 establishes the principles and basic methodology of a formal system of biocontamination control (Formal System) for assessing and controlling biocontamination when cleanroom technology is applied for that purpose.

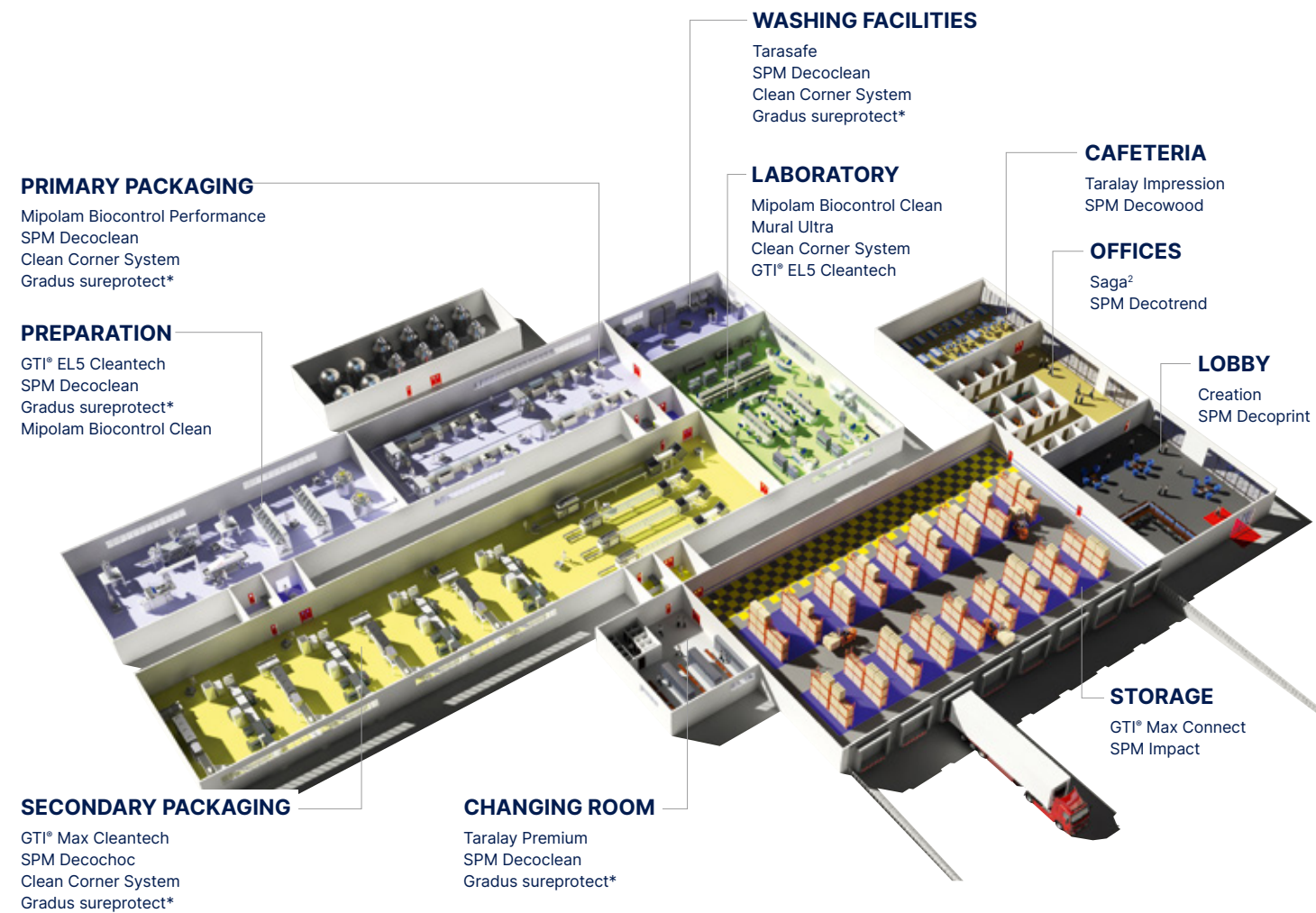
Esd properties



IEC 61340-5-1 Protection of electronic devices from electrostatic phenomena – General requirements.

ANSI/ESD S20.20 provides administrative and technical requirements for establishing, implementing, and maintaining an ESD Control Program to protect electrical or electronic parts, assemblies, and equipment susceptible to damage by electrostatic discharges.

A complete Solution



* UK only

Exclusive solutions
for renovation /
rehabilitation of your
sites

■ A TECHNICAL ASSISTANCE SERVICE
(TAS) SUPPORTS YOU ON YOUR
PROJECTS



Ideal for renovation



ESD areas

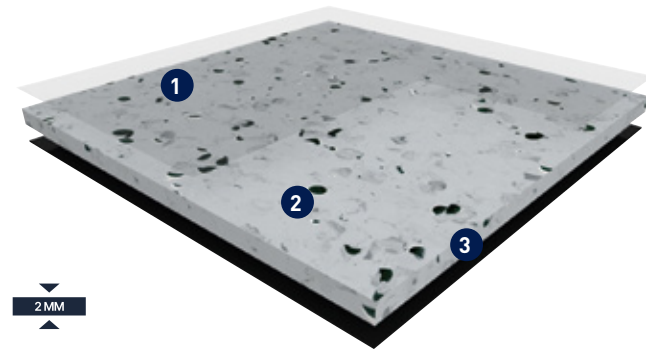
ISO 5

GMP-
Class A

H₂O₂
RESISTANT



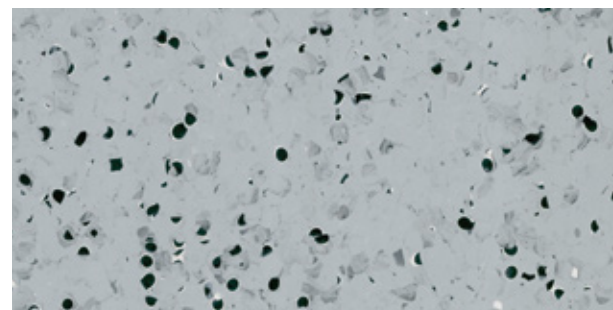
Mipolam Biocontrol EL5



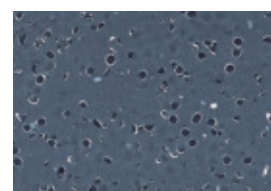
- 1 Conductive surface treatment
- 2 Homogeneous conductive layer with carbon black
- 3 Backing treated with carbon black



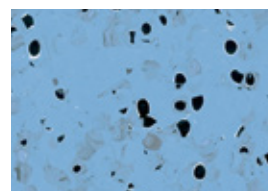
Sold in rolls
of 20 x 2 m



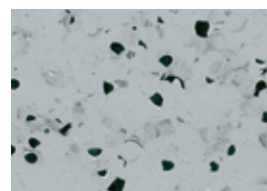
■ THE HIGH PERFORMANCE FLOOR FOR
ESD CLEANROOMS



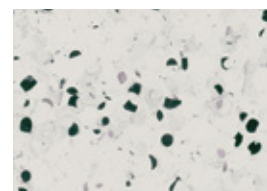
2002 Volcano / 0351 Black



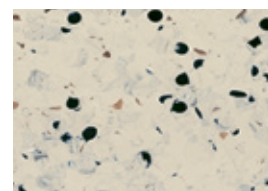
2004 Horizon / 0354 Bleu



2006 Medium Fog / 0352 Grey

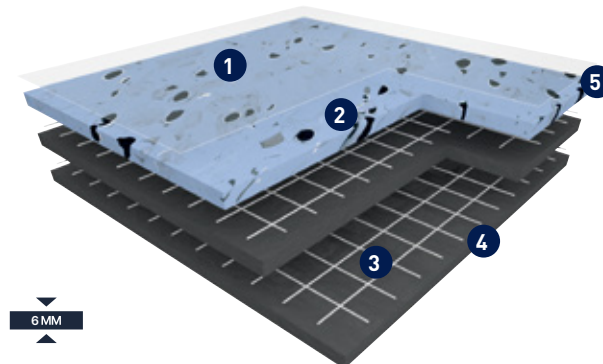


2001 Light Fog / 0350 Light Grey



0353 Beige

GTI® EL5 Cleantech



- 1 Static conductive surface treatment
- 2 Static conductive wear layer
- 3 Double fiber glass reinforcing grid
- 4 Static conductive backing
- 5 Straight edges



Sold in tiles of
650 x 650 mm



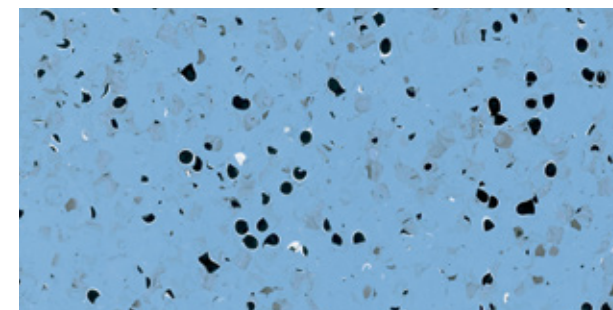
Watertight
system



A little to no
adhesive



High mechanical
traffic resistance

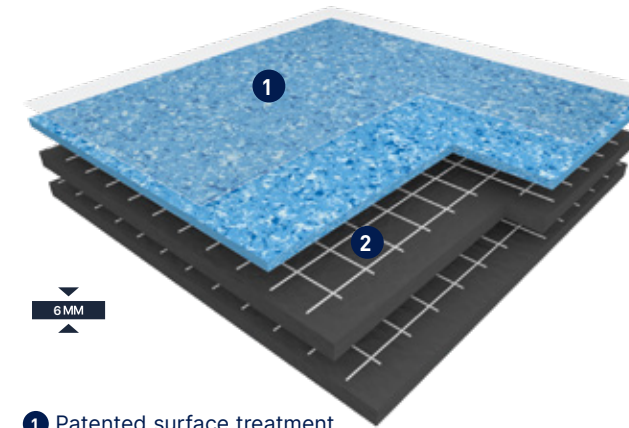


■ THE PERFECT SOLUTION FOR
RENOVATION OF CLEANROOMS AND ESD
AREAS

GTI® Max Cleantech

ISO 3

H₂O₂
RESISTANT



- 1 Patented surface treatment
- 2 Double fiber glass reinforced grid



Sold in tiles of
600 x 600 mm



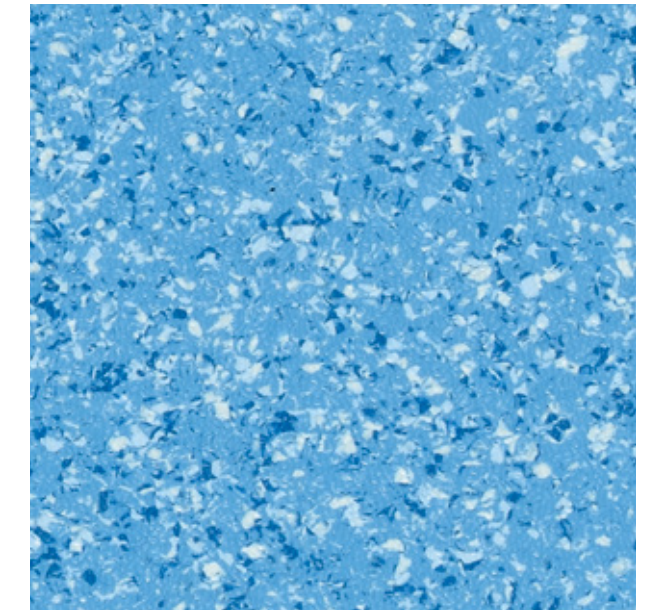
Watertight
system



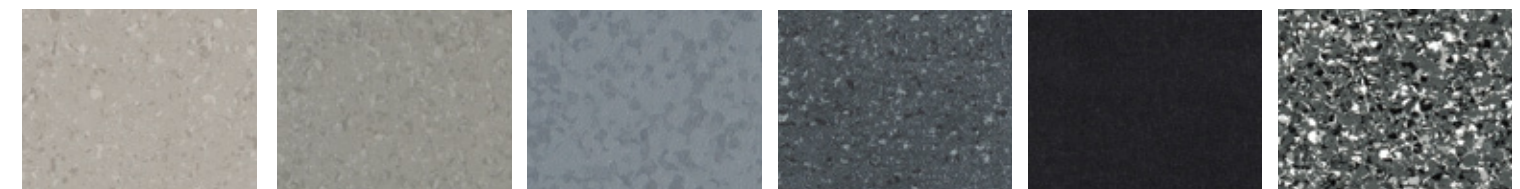
A little to no
adhesive



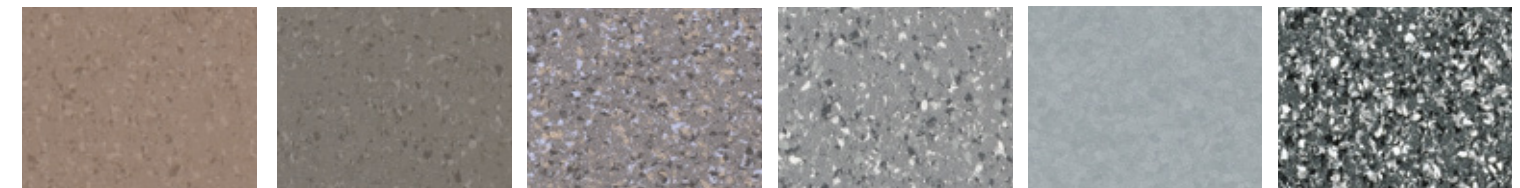
High mechanical
traffic resistance



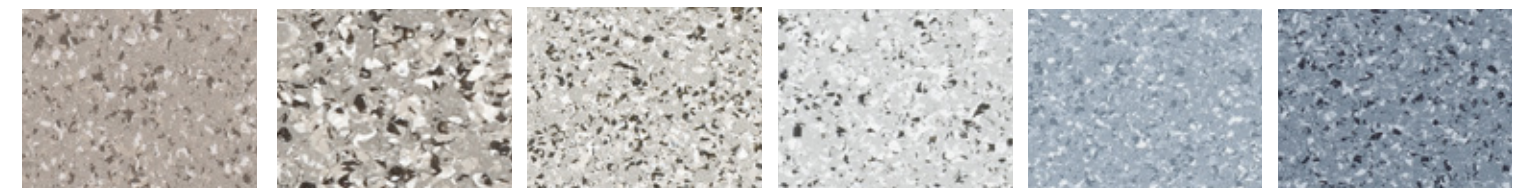
■ THE EXCLUSIVE SOLUTION FOR RENOVATION
OF CLEANROOMS WITH HIGH TRAFFIC



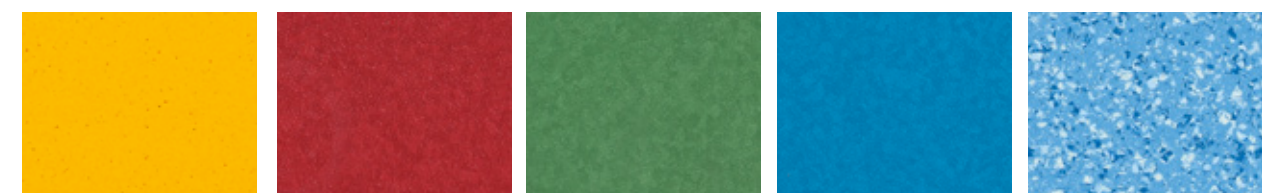
0263 Bora* 0259 Grecale* 0235 Dark Grey 0260 Ora* 0236 Black 1249 Tramontana



0261 Scirocco* 0262 Libeccio* 0247 Magma 0266 Peler 0234 Clear Grey 0249 Carbon

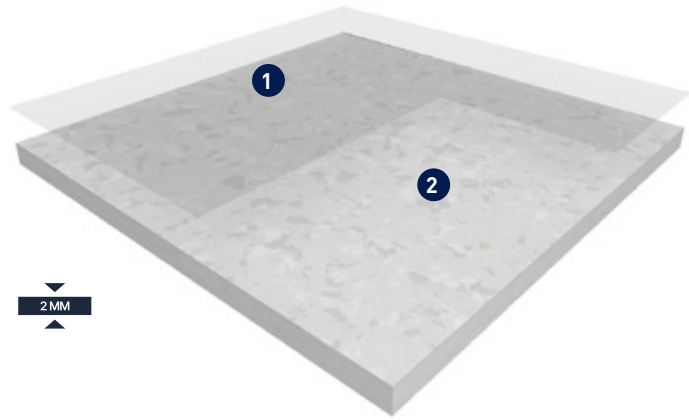


0267 Levante 0264 Ponente 0265 Maestrale 0268 Ermellino 0253 Aluminium 0252 Titanium

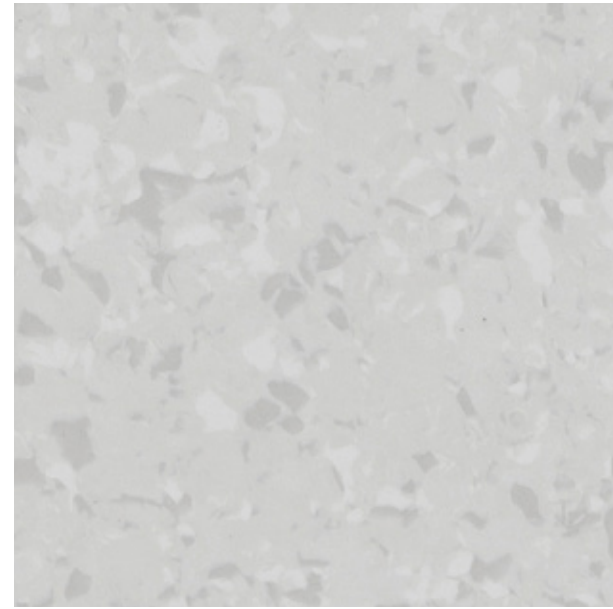


0231 Yellow 0232 Red 0233 Green 0230 Blue 0255 Saphir* * For US, on demand

Mipolam Biocontrol Performance

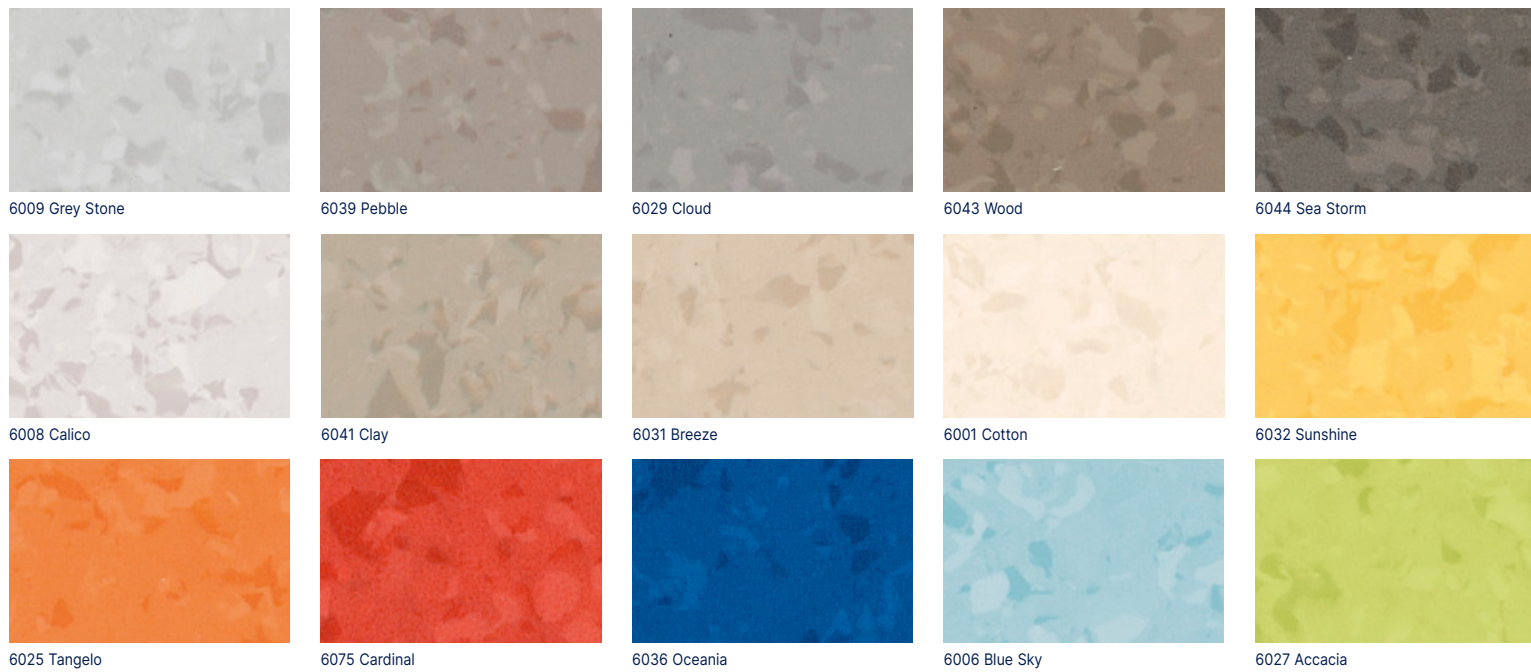


2 2 mm calendered PVC single layer

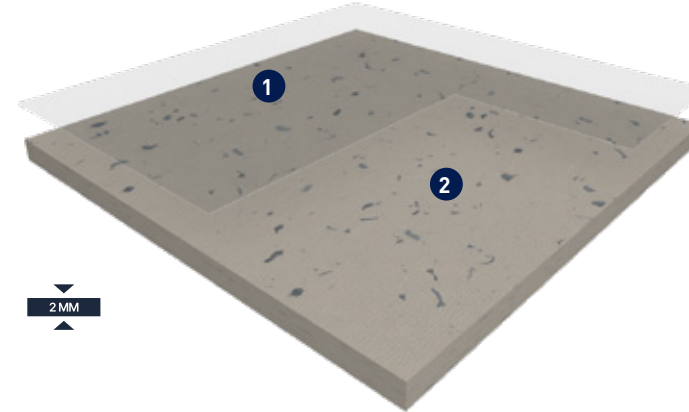


■ HIGH PERFORMANCE SOLUTION FOR CLEANROOMS

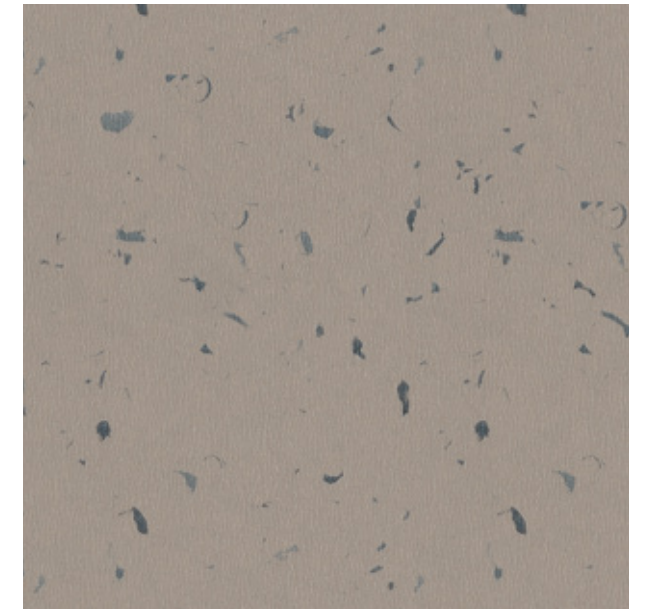
■ 17% PLANT-BASED CONTENT



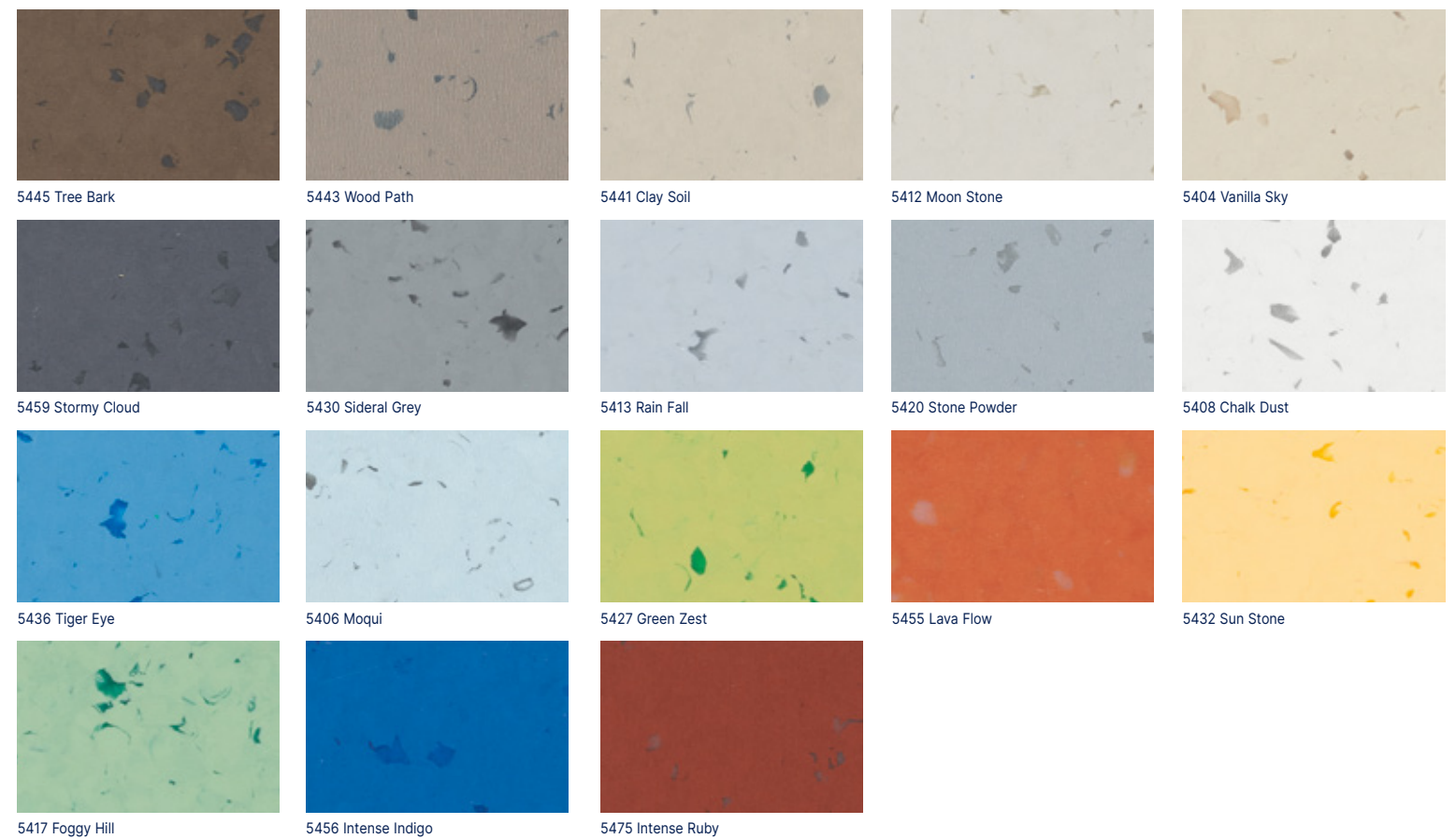
Mipolam Biocontrol Clean



1 Surface treatment
2 2 mm calendered PVC single layer



■ THE REFERENCE FOR CLEANROOMS



Decoclean wall panel system

ISO 5

GMP-
Class A

H₂O₂
RESISTANT



1 Solid color PVC 2 mm thick

■ WALL PROTECTION SOLUTION IDEAL FOR RENOVATION



Sold in tiles of 1.3 x 3 m



Withstands impacts and shocks



Watertight system



Resistant to chemical spills

■ **ANTIBACTERIAL HOMOGENEOUS** resilient wall panels PVC, tinted in the mass, thickness 2 mm

■ **EASY TO INSTALL:** delivered with a peel-off protective film to avoid having to do a systemic cleaning after installation

■ **LOW MAINTENANCE:** can be welded to floor for continuous floor-to-ceiling watertight room and resistant to chemical spills

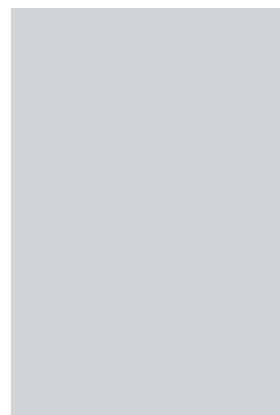
■ **RESISTANT TO NUCLEAR DECONTAMINATION** according to ISO 8690

■ **BACTERIOLOGICAL RESISTANCE** according to ISO 22196, Class 1 (Bs2d0)

■ **SUSTAINABLE:** REACH-compliant, GREENGUARD certified, low VOC, 100% recyclable, Phthalates-free, non polluting / non-toxic material, no heavy metals



0001 Chalk



0011 Pebble



0004 Granite



0006 Ivory

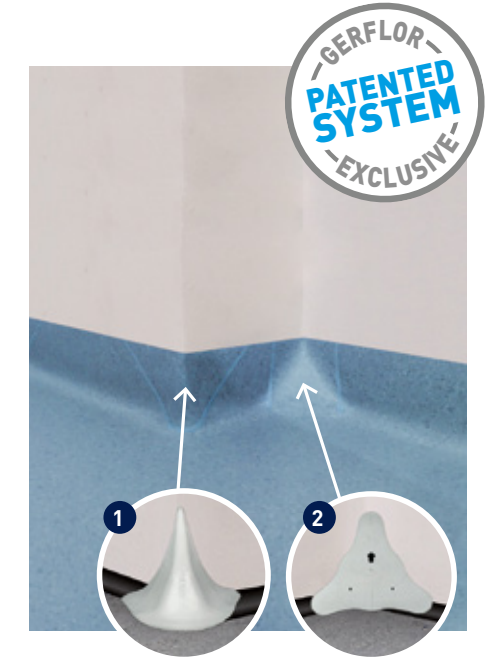


0007 Wicker

Clean corner system



Gerflor floor-to-ceiling smooth transition



1 Clean Corner external floor angle

2 Clean Corner internal floor angle

■ **COMPLIANT WITH GMP**

■ **EASY COVING**

■ **ULTRA RESISTANT BI-MATERIAL CORNER PROFILES**

■ **QUICK AND EASY CLEANING AND DECONTAMINATION**

Watertightness control system



■ **VALIDATION:** the quality of the installation and the sealtness of the flooring is checked before commissioning.

■ **RELIABILITY:** Periodic checks of the integrity of the flooring during service stoppages.

■ **QUALITY:** Any defects can be repaired before commissioning. Any moisture-related problems are identified.

■ **DECONTAMINATION:** Prevents a contamination zone from forming.










Z0013949

				Mipolam Biocontrol Performance	Mipolam Biocontrol Clean	GTI® Max Cleantech	GTI® EL5 Cleantech	Mipolam Biocontrol EL5	Decoclean
Performances in cleanroom									
Particulate emission	Fraunhofer method	ISO 14644-1	-	ISO3	ISO3	ISO3	ISO5	ISO5	ISO5
Air cleanliness	ISO 16000-6,-9,-11	ISO 14644-8	(µg/m ³ /h)	TCOV = unmesurable (23°C) ACCm/AMCm ≤ - 9.6	TCOV = unmesurable (23°C) ACCm/AMCm ≤ - 8.2	TCOV = unmesurable (23°C) ACCm/AMCm ≤ - 8.5	TCOV = unmesurable (23°C) ACCm/AMCm ≤ - 8	TCOV = unmesurable (23°C) ACCm/AMCm ≤ - 7.7	TCOV = unmesurable (23°C) ACCm/AMCm ≤ - 7.7
Anion emission	Fraunhofer method	ISO 14644-8	(µg/m ³ /h)	Unmesurable (23°C)	Unmesurable (23°C)	Unmesurable (23°C)	Unmesurable (23°C)	Unmesurable (23°C)	Unmesurable (23°C)
Amonium N emission	ISO 11732	ISO 14644-8	(µg/m ³ /h)	Unmesurable (23°C)	Unmesurable (23°C)	Unmesurable (23°C)	Unmesurable (23°C)	Unmesurable (23°C)	Unmesurable (23°C)
Static electrical propensity / Body voltage generation	EN 1815	-	kV	Antistatic: < 2	Antistatic: < 2	Antistatic: < 2	Antistatic: < 2	Antistatic: < 2	-
	IEC 61340-4-5 /ASTM 97.2	EN61340-5-1 ESD S2020	V	-	-	-	< 100	< 100	-
Electrical resistance	EN61340-4-1 ESD 7.1	EN61340-5-1 ESD S2020	Ω	Isolating: > 10 ¹¹ Ω	Isolating: > 10 ¹¹ Ω	Isolating: > 10 ¹¹ Ω	< 10 ⁹ Ω	< 10 ⁹ Ω	-
Resistance on Microorganism development on the floor ⁽¹⁾	ISO 846	BPF / GMP	Part A (fungi)	Good	Good	Good	Good	Good	-
			Part C (bacterial)	Excellent	Excellent	Very Good	Excellent	Excellent	-
Anti-viral activity ⁽¹⁾	VirHealth	ISO 21702	VirHealth	99.7% after 2 h 99.9% after 5 h	99.7% after 2 h 99.9% after 5 h	-	-	99.7% after 2 h 99.9% after 5 h	99,96 % after 2h 99,99 % after 5h
Anti-bacterial activity ⁽¹⁾	Intertek	ISO 22196	INTERTEK	> 99% inibits growth	99% inibits growth	-	-	> 99% inibits growth	> 99 % de réduction
Chemical resistance	ISO 2812-1	ISO 14644-4/ BPF	-	Excellent	Excellent	Good	Excellent	Excellent	Excellent
Nuclear decontamination	-	ISO 8690	-	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Resistance to gaseous H ₂ O ₂	Bioquell	ISO 14644-4/ BPF	-	No alteration	No alteration	No alteration	No alteration	No alteration	Unmesurable (23°C)
Maximum static load	-	ASTM F970	-	- .002" under 250 psi and up to 2000 psi	- .002" under 250 psi and up to 2000 psi	- .002" under 250 psi and up to 2000 psi	- .002" under 250 psi and up to 2000 psi	- .002" under 250 psi and up to 2000 psi	-
Fire behaviour	-	EN 13501-1	Class	Bfl-S1	Bfl-S1	Bfl-S1	Bfl-S1	Bfl-S1	Bs2d0
Fire rating	-	ASTM E 648	Class	Class 1	Class 1	Class 1	Class 1	Class 1	Class A
Slip resistance	-	DIN 51 130	Class	R9	R9	R10	R9	R9	-
Coefficient of friction	-	ASTM D 2047	-	0.56 (OK)	0.56 (OK)	0.56 (OK)	0.56 (OK)	0.56 (OK)	-
	-	ASTM C 1028	-	Meets requirements	Meets requirements	Meets requirements	Meets requirements	Meets requirements	-
Description									
Total thickness	-	EN ISO 24346 (EN428)	mm	2 (0.08")	2 (0.08")	6 (1/4")	6 (1/4")	2 (0.08")	2 (0.08")
Roll size	-	EN ISO 24341 (EN426)	m	2 × 20 (6'6 × 66')	2 × 20 (6'6 × 66')	-	-	2 × 20 (6'6 × 66')	-
Tile size*	-	EN ISO 24342 (EN727)	mm	608 × 608 (23.9" x 23.9")	608 × 608 (23.9" x 23.9")	600 × 600 (23.6" x 23.6")	650 × 650 (25.6" x 25.6")	608 × 608 (23.9" x 23.9")	1300×3000 (4.26» x 9.8»)
European classification	-	EN ISO 10874 (EN685)	Classification	34-43	34-43	34-43	34-43	34-43	-
Reference specification	-	ASTM F1913 EN 14041	-	Meets requirements	Meets requirements	Meets requirements	Meets requirements	Meets requirements	-
Environment									
Recyclability	-	-	%	100%	100%	100%	100%	100%	100%
EPD	-	-	-	OK	OK	OK	OK	OK	OK

* Measured before installation / ** Measured with ESD shoes compliant with ESD S20.20 and IEC 61340.5.1
(1) Subject to respect of appropriate maintenance and decontamination protocols.



we care / we act our commitments for 2030

 <p>climate</p> <p>-30% CO₂ scopes 1, 2, 3 in tons eq. CO₂ vs 2019 Science Based Targets⁽¹⁾</p>	 <p>resources</p> <p>75% biobased, mineral & recycled⁽²⁾</p> <p>30% recycled content⁽³⁾</p>	 <p>circularity</p> <p>65 000 tons of waste treated⁽⁴⁾</p> <p>45% looselay⁽⁵⁾</p>	 <p>health & well-being</p> <p>100% of our products perform better than Indoor Air Quality standards⁽⁶⁾</p> <p>95% sales covered by EPD⁽⁷⁾</p>	 <p>people</p> <p>30% women⁽⁸⁾</p> <p>40% internal mobility⁽⁹⁾</p> <p>Towards 0 accident⁽¹⁰⁾</p>
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More details: 1. Scopes 1, 2 & 3, in absolute value, market-based. Trajectory approved by SBTi (Science Based Targets Initiative). 2. Origin of raw materials for the entire Floor & Wall portfolio, on average, by weight; including 15% virgin salt, a primary element in vinyl manufacturing. Compared to 71% in 2024. 3. Average content in the Floor & Wall vinyl portfolio, by weight. Compared to 21% in 2024. 4. Recycled in our factories and recycling units. Compared to 59 040 tons in 2024. 5. % of Floor activity with non-glued products, easy to remove, easy to re-use. Compared to 40% in 2024. 6. 100% of vinyl and linoleum sold to the building market below 100 micrograms /m³ (TVOC 28 days). 7. % of Floor & Wall activity covered by Environmental Product Declarations (EPD). Compared to 44% in 2024. 8. % women in our global workforce and among our managers. Compared to respectively 26% and 27% in 2024. 9. % job openings filled with internal hires worldwide. Compared to 25% in 2024. 10. Towards 0 accident: Lost time accident per million hours worked: below 3 vs 8,9 in 2024, for Gerflor employees worldwide.

