

ULTRA  
CLEAN  
BY GERFLOR

gerflor.co.uk  
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ISO 4  
&  
ISO 5



**Gerflor**  
theflooringgroup



# TABLE OF CONTENTS

THE STANDARD ..... p. 04

GERFLOR MEETS ULTRA CLEAN REQUIREMENTS ..... p. 08

## 1. FLOOR AND WALLCOVERINGS

▶ **IMPACT OF GERFLOR SOLUTIONS ON AIR QUALITY** ..... p. 10

- Particulate emission
- Molecular emission
- Measurement of the antibacterial activity of products

▶ **CLEANABILITY AND DISINFECTION** ..... p. 12

- Assessment of the cleanability of a covering
- Assessment of the disinfectability of a covering

▶ **TECHNICAL PROPERTIES** ..... p. 14

- Electrostatic properties
- Chemical resistance

## 2. CLEAN CORNER SYSTEM ..... p. 16

FLOOR/WALL CERTIFICATES ..... p. 18

FLOOR COVERINGS ..... p. 22

- Taralay Premium Osmoz (Compact)
- Mipolam Symbioz™
- Mipolam Elegance EL5

WALLCOVERINGS ..... p. 25

- Mural Ultra

In **the fight against nosocomial infections, the hygiene and cleanliness** of at-risk zones play a decisive role.




## THE STANDARD

Revised in April 2013, **the French Standard NF S90-351<sup>(1)</sup>** entitled "Healthcare Facilities - Controlled Environment Areas - Requirements concerning the control of airborne contamination" **is the reference standard that defines the requirements for controlling airborne contamination in controlled environment areas in healthcare facilities.**

(1) Standard NF S90-351 refers to the European Standards concerning hygienic air processing:  
 - ISO 14644 (Parts 1 - 5): cleanrooms and associated controlled environments;  
 - ISO 14698 (Parts 1 - 2): cleanrooms and associated controlled environments; biocontamination control

► This standard proposes the **following risk class** reference standards:

### RISK CLASS BY TYPE OF ACTIVITY



	ZONE 1 Minimal risk	ZONE 2 Moderate risk	ZONE 3 High risk	ZONE 4 Very high risk <sup>(1)</sup>
LOCATION / ACTIVITY	<ul style="list-style-type: none"> <li>- Hospitalisation (Standard hospital room, hospital room for infectious patients)</li> <li>- Cutting stations</li> <li>- Macroscopy</li> </ul>	<ul style="list-style-type: none"> <li>- Recovery room</li> <li>- Sterile medical device storage</li> <li>- ICU (Multipurpose room, neonatal and infectious patient intensive care, ICU movement areas)</li> <li>- Hospitalisation (ICU rooms, continuous monitoring rooms)</li> <li>- Radiopharmacy, packaging and storage zone</li> <li>- Operating theatres (Pre-op care rooms, post-theatre rooms, operating theatre corridors)</li> </ul>	<ul style="list-style-type: none"> <li>- Hospitalisation (Haematology - outside protected units; organ transplant unit rooms; post-transplant unit rooms)</li> <li>- Interventional radiology</li> <li>- In vitro fertilisation</li> <li>- Operating theatres (multipurpose rooms, ENT and orthopaedics, arthroscopy, haemodynamics, digestive and visceral surgery, urology, cardiovascular surgery, neurosurgery, plastic, aesthetic and renewal surgery, obstetrics, gynaecology)</li> </ul>	<ul style="list-style-type: none"> <li>- Hospitalisation [Burns units, protected units (haematology)]</li> <li>- Pharmacy (Cytostatic reconstitution), Production of parenteral solution</li> <li>- Operating theatres (Prosthetic orthopaedics, major burns operations, organ transplants)</li> </ul>

(1) Some premises are rated "4a" which means that only the area under the unidirectional flow is considered to be compliant with the requirements for this class. Each facility must allocate a risk rating lower than or equal to this to the rest of the premises.

▷ Depending on the risks, **the standard defines expected performance levels to be met:**

- **Classification of cleanliness by particle concentration:** defined by ISO standard 14644-1  
This corresponds to the number and size of allowable particles in the zone in question. Therefore this criterion is related, amongst other things, to the particles emitted by the coverings when they are subjected to stress.

Particulate cleanliness classes range from ISO 1 (the most demanding level), to ISO 9 (the least demanding).

PARTICULATE CLEANLINESS CATEGORIES

	CLASS NUMBER	MAXIMUM ALLOWABLE CONCENTRATIONS (PARTICLES/M <sup>3</sup> OF AIR) OF PARTICLES OF SIZES GREATER THAN OR EQUAL TO THOSE GIVEN BELOW					
		ISO	0.1 µm	0.2 µm	0.3 µm	0.5 µm	1 µm
↑ MOST DEMANDING	ISO Class 1	10	2				
	ISO Class 2	100	24	10	4		
	ISO Class 3	1,000	237	102	35	8	
↑ LEVEL REQUIRED IN RISK ZONE 4	<b>GERFLOR Ultra Clean Offer</b> *						
	ISO Class 4	10,000	2,370	1,020	352	83	
	ISO Class 5	100,000	23,700	10,200	3,520	832	29
	ISO Class 6	1,000,000	237,000	102,000	35,200	8,320	293
	ISO Class 7				352,000	83,200	2,930
↑ LESS DEMANDING LEVEL	ISO Class 8				3,520,000	832,000	29,300
	ISO Class 9				35,200,000	8,320,000	293,000

N.B.: Due to measurement uncertainties, concentrations are express with, at most, 3 significant figures.

[1] The only criterion on which the floor can have an impact is the particulate cleanliness category.

\* **The particulate emission level required in Risk 4 zones is ISO 5. GERFLOR's ULTRA CLEAN offer exceeds this requirement, with most tested products classified ISO 4.**

# THE STANDARD

▷ The standard defines other values such as:

- **Kinetic class for particulate decontamination:** defined by "the time needed to obtain 90% decontamination compared to the initial pollution peak". The measurement is taken at 0.5 µm particles.
- **Bacteriological cleanliness class:** defines a maximum concentration of viable particles not to be exceeded (parameter related to the ventilation of facilities).
- **Pressure, temperature and air flow levels** to be met in activity.

▷ All these values are summarised in the table below:

GUIDE VALUES FOR AIRFLOW PERFORMANCE DEPENDING ON THE RISK LEVEL:

RISK LEVEL	RISK CATEGORY	PARTICULATE CLEANLINESS CLASS	PARTICLE ELIMINATION KINETICS	MICROBIOLOGICAL CLEANLINESS CLASS	DIFFERENTIAL PRESSURE (POSITIVE OR NEGATIVE)	TEMPERATURE RANGE	AIRFLOW SYSTEM IN THE ZONE TO BE PROTECTED	OTHER SPECIFICATIONS, MINIMAL VALUE
+	4 (a) <sup>[1]</sup>	ISO 5	CP 5	M1	15 Pa ± 5 Pa	19°C to 26°C	Unidirectional flow	Zone under flow Air speed of 0.25 m/s to 0.35 m/s New air rate in the facility ≥ 6 volumes/hour
	3	ISO 7	CP 10	M10	15 Pa ± 5 Pa	19°C to 26°C	Unidirectional or directional flow	Air change rate ≥ 15 volumes/hour
-	2	ISO 8	CP 20	M100	15 Pa ± 5 Pa	19°C to 26°C	Directional flow	Air change rate ≥ 10 volumes/hour

[1] Some premises are rated "4a" which means that only the area under the unidirectional flow is considered to be compliant with the requirements for this class. Each facility must allocate a risk rating lower than or equal to this to the rest of the premises.



## THE GERFLOR SOLUTION

# GERFLOR MEETS THE REQUIREMENTS



To meet the very strict needs and regulations of these zones, **Gerflor has developed solutions that meet the various current standards**, which have been tested and validated by:

## GERFLOR ULTRA CLEAN OFFER



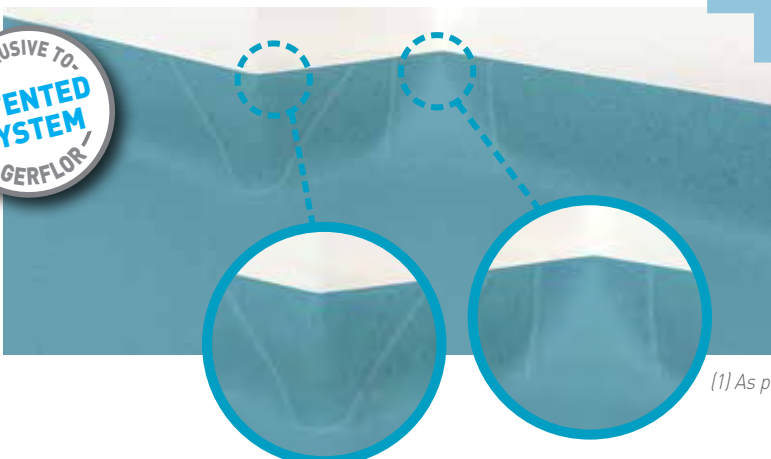
### FLOOR COVERINGS ISO 4 & ISO 5<sup>(1)</sup>

- Taralay Premium Osmoz (Compact)
- Mipolam Symbioz™
- Mipolam Elegance EL5



### WALLCOVERING ISO 4<sup>(1)</sup>

- Mural Ultra



### INTERNAL AND EXTERNAL CORNERS



<sup>(1)</sup> As per the experimental protocol inspired by ISO standard 14644-1.



# OF CATEGORY 4 RISK AREAS

► **Biotech-Germade**

Laboratory which specialises in the management of infection risk in the hospital environment

► **Intertek**

A world-renowned validation body producing certification for a wealth of business sectors

## HOW?

### 1. FLOOR COVERINGS/WALLCOVERINGS - ISO 4 & ISO 5<sup>(1)</sup>

- **IMPACT OF GERFLOR SOLUTIONS ON AIR QUALITY:**  
particulate/molecular emissions and antibacterial activity of the product
- **CLEANABILITY AND DISINFECTION:**  
assessment of the capacity of materials to be cleaned and disinfected
- **TECHNICAL PROPERTIES:**  
electrostatic and chemical resistance properties

### 2. CLEAN CORNER SYSTEM:

Aiding contamination control through the use of an exclusive corner installation solution.



# IMPACT OF GERFLOR SOLUTIONS ON AIR QUALITY

## PARTICULATE EMISSION

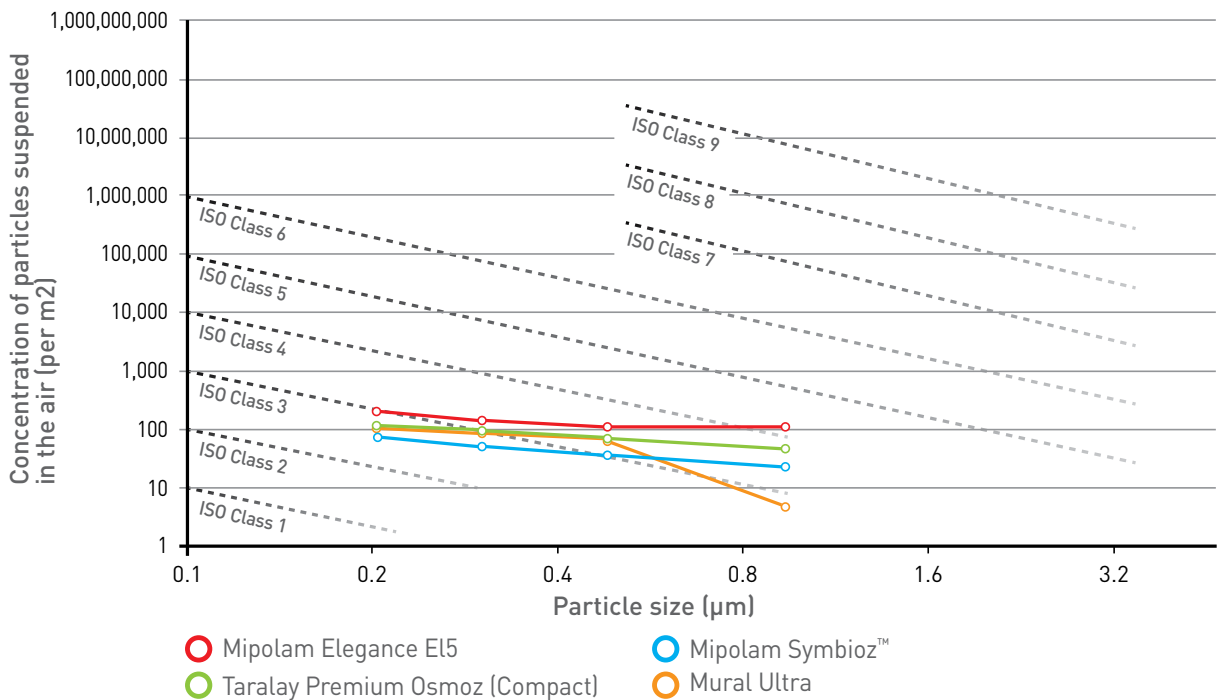
French standard **NF S90-351**, based on **ISO standard 14644-1**, specifies the particulate cleanliness class to obtain, i.e. the maximum concentration of particles - between 0.1  $\mu\text{m}$  and 5.0  $\mu\text{m}/\text{m}^3$  - per risk zone in operating theatres.

The aim of this test is to determine the level of particles emitted by the floor/ wallcovering when subjected to abrasion simulation.



**Results for**  
 Taralay Premium Osmoz (Compact) /  
 Mipolam Symbioz™ / Mipolam Elegance EL5 / Mural Ultra

### PRODUCT CLASSIFICATION ACCORDING TO ISO 14644-1



**The particulate class of products tested is:**  
**ISO 4 (Taralay Premium Osmoz, Mipolam Symbioz™, Mural Ultra) and ISO 5 (Mipolam Elegance EL5).**  
 These products are therefore particularly suited to risk 4 zones<sup>(1)</sup>.

(1) As defined by the French Standard NF S90-351.

## MOLECULAR EMISSION

All materials emit volatile substances called VOCs (Volatile Organic Compounds). Due to the quantity or quality of VOCs emitted, some products (solvents, adhesives, paints, etc.) can negatively affect the air quality inside buildings.

Our floorings are assessed regularly in compliance with **ISO standard 16000-6** after 3 and 28 days, and the result is that **Gerflor floorings have some of the lowest emissions on the market.**

### Results for

Taralay Premium Osmoz (Compact) /  
Mipolam Symbioz™ / Mipolam Elegance EL5 /  
Mural Ultra

#### ▷ Complies with the French directives of 2009

- contains no trichloroethylene, benzene, DEHP or DBP

▷ **Rated A+** (the highest rating) for quantity (TVOC after 28 days in  $\mu\text{g}/\text{m}^3$ ) and quality (emissions nil or below the thresholds for the 10 listed gases) for the health labelling process implemented in France in January 2012.

#### ▷ Complies with the German regulatory protocol AgBB:

- contains no carcinogenic compounds  
- emissions  $< 10 \mu\text{g}/\text{m}^3$  (for reference: the maximum accepted emission level by the German protocol at 28 days is)  $1,000 \mu\text{g}/\text{m}^3$ )

#### ▷ Complies with the American protocol, Floorscore.

- contains no formaldehyde

Gerflor products perform far better than market requirements with **almost non-existent TVOC levels ( $< 10 \mu\text{g}/\text{m}^3$ ).**

## MEASUREMENT OF THE ANTIBACTERIAL ACTIVITY OF THE PRODUCTS

If bacteria are present on the ground, it is important that building materials do not cause them to proliferate.

**The following test, based on the ISO standard 22196, measures the capacity of our products to limit, after 24 hours, the proliferation of the most commonly encountered bacteria in hospitals.**

### Results for

Taralay Premium Osmoz (Compact) /  
Mipolam Symbioz™ / Mipolam Elegance EL5 /  
Mural Ultra

In 99% of cases, after 24 h,  
**there was no proliferation  
of these bacteria on  
our products.**

*N.B.: Compliance with floor care protocols is the best guarantee against infections*

- ▷ *Escherichia coli* (EC - DSM 1576): 99%
- ▷ *Staphylococcus aureus* (SA - DSM 346): 99%
- ▷ Methicillin-resistant *Staphylococcus aureus* (MRSA - DSM 683): 99%

# CLEANABILITY AND DISINFECTION

## ASSESSMENT OF THE CLEANABILITY OF A FLOOR/WALLCOVERING

Beyond the impact of building products on the environment, the cleanability and disinfectability of a material remain the most fundamental criteria.

Following a method inspired by **the EN Standard 15883-5**, the covering to be tested is artificially contaminated by a complex soiling agent (defined in **EN Standard 14885**).

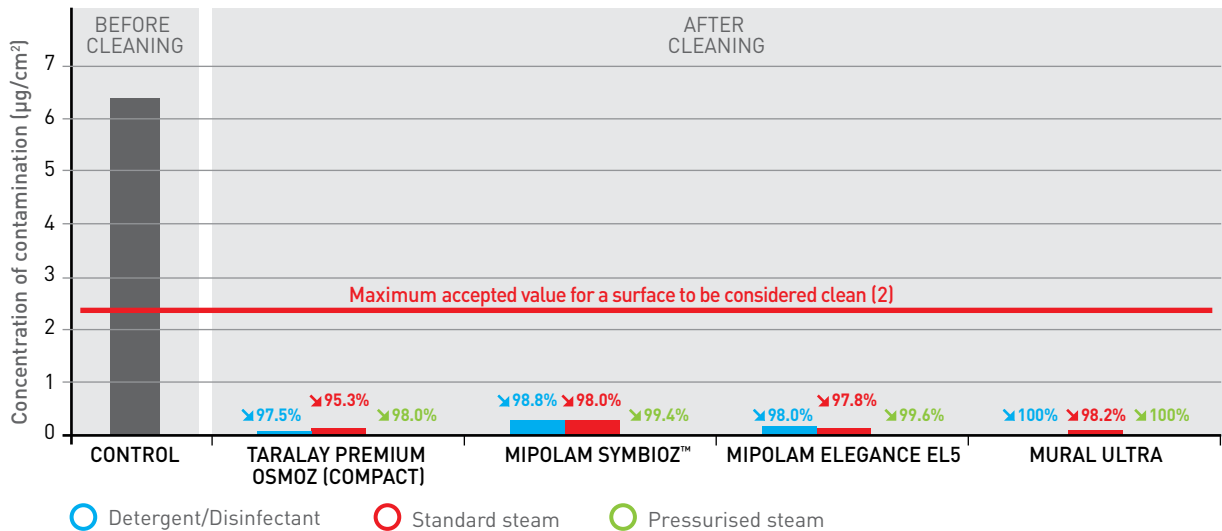
### 2 CLEANING PROCEDURES ARE USED:

- ▷ Spraying with detergent/disinfectant
- ▷ Steam cleaning/disinfection

Cleanability is assessed by determining the quantity of residual contamination present on the surface of the covering after the execution of a set maintenance procedure.

### Results for Taralay Premium Osmoz (Compact) / Mipolam Symbioz™ / Mipolam Elegance EL5 / Mural Ultra

#### REDUCTION IN THE AMOUNT OF CONTAMINATION ON THE PRODUCTS DEPENDING ON THE CLEANING/DISINFECTION METHOD USED



By applying these maintenance processes to the floor/wallcoverings tested, it is possible to achieve **higher levels of cleanability than required by French guidelines <sup>(1)</sup> and the EN Standard 15883-5<sup>(2)</sup>**.

(1) Less than 2.5 µg/cm² of residual contamination, target value proposed by the French working group of ISO TC 198 WG13 in charge of revising EN ISO 15883-5. / (2) Over 90% reduction of the initial organic load.

## ASSESSMENT OF THE DISINFECTABILITY OF A COVERING

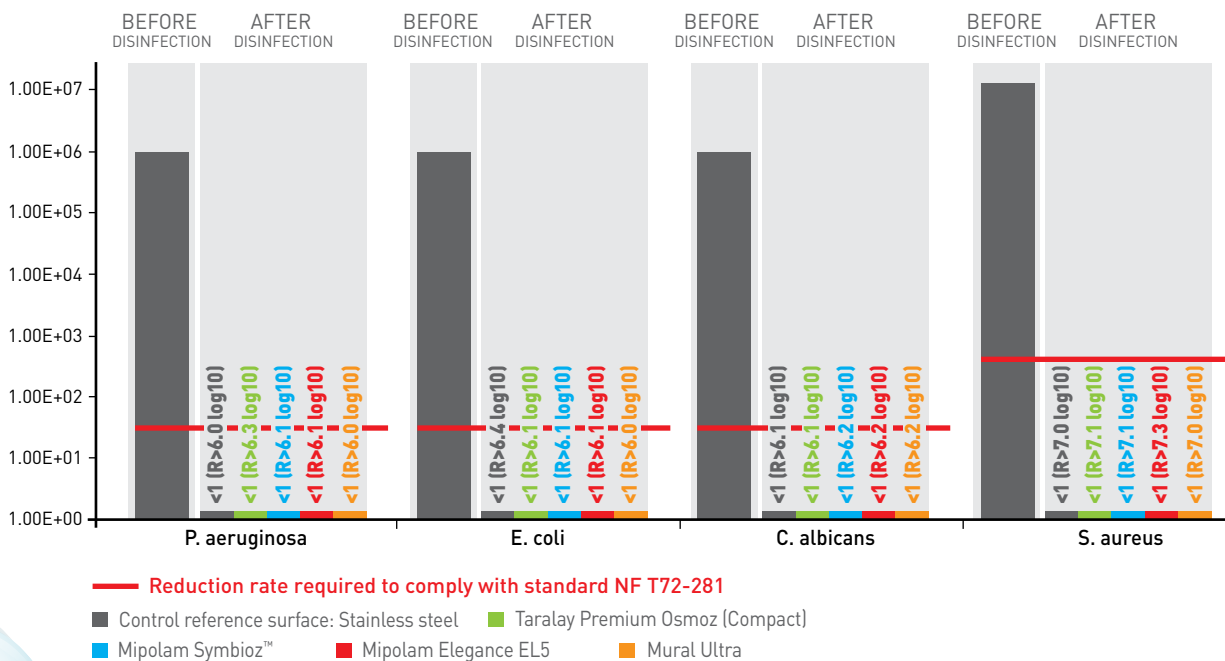
Using a method inspired by the French Standard **NF T72-281**, the products are artificially contaminated by a suspension of microorganisms, then subjected to an airborne disinfection process.

The disinfectability is assessed by determining the quantity of viable bacteria present on the surface of the material after applying the disinfection process and comparing the results obtained with a control surface (stainless steel).

### Results for

Taralay Premium Osmoz (Compact) / Mipolam Symbioz™ / Mipolam Elegance EL5 / Mural Ultra

### CHANGE IN THE NUMBER OF MICROORGANISMS ON THE FLOOR/ WALLCOVERINGS SUBJECTED TO AIRBORNE DISINFECTION



The reduction in the number of microorganisms on the coverings tested **complies with the requirements of the French Standard NF T72-281 for the microorganisms tested.**

# TECHNICAL PROPERTIES

## ELECTROSTATIC PROPERTIES



### THE RESISTANCE OF A PRODUCT IS MEASURED IN TERMS OF:

- ▷ **Its charge potential:** tendency to accumulate electromagnetic charges
- ▷ **Its electrical resistance:** capacity to resist the flow of electromagnetic charges

It is particularly important to know the electrostatic tolerance levels of the area in question in order to match the product to the environment. Consideration should be given to the classification of an operating theatre (e.g., AIA zones, where flammable anaesthetics are authorised (1)) and to the nature of the materials used to determine whether an antistatic or a static conductive floor should be specified.

*(1) The number of AIA zones is currently limited, because anaesthesia procedures have evolved.*

### Results for Taralay Premium Osmoz (Compact) / Mipolam Symbioz™ / Mipolam Elegance EL5

			TARALAY PREMIUM OSMOZ (Compact) / MIPOLAM SYMBIOZ™	MIPOLAM ELEGANCE EL5
CHARGE POTENTIAL	EN 1815	kV	< 2	< 2
ELECTRICAL RESISTANCE	EN 1081	Ω	$R_t \geq 10^9$	$10^4 \leq R_t \leq 10^6$

### TWO CATEGORIES OF PRODUCTS ARE TESTED

**Taralay Premium Osmoz (Compact)** and **Mipolam Symbioz™**: antistatic products,

**Mipolam EL5**: conductive product.

Neither category of products capture particles present in the environment (electrical resistance <2 kV), therefore, the cleaning process is facilitated.

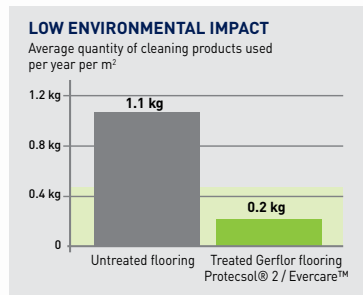
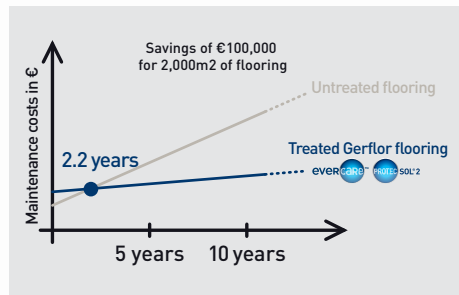


# CHEMICAL RESISTANCE

Due to the importance of hygiene and stain-resistance, in the clinical environment, **Gerflor has developed high-performing surface treatments, evidenced during the 25 years of their application in the healthcare sector.**

## SURFACE TREATMENTS:

- ▶ **Facilitate maintenance and prevent all metallisation, costly and prohibited in active Risk 3 and 4 areas**  
 (Source: Infection risk prevention recommendation sheets, CCLIN Sud-Est, May 2004)



- ▶ **Resist the most complex and most common stains** encountered in a hospital setting.

The table below shows the **resistance of Gerflor floor and wallcoverings** to various products. For specific studies with a view to obtaining the French UPEC C3 classification, please contact our technical department.

### NEUTRAL DETERGENT/DISINFECTANT DETERGENT

When the results for neutral detergent and disinfectant detergent differ, the results for the disinfectant detergent are given in blue.

PRODUCTS/TIME	CONCENTRATION (mol/L)	TL PREMIUM OSMOZ (Compact) MIPOLAM SYMBIOZ™ MIPOLAM ELEGANCE EL5		MURAL ULTRA	
		5'	24 h	5'	24 h
<b>ALCOHOL</b>					
Iodised alcohol	/	0	4 c	4 c	4 c
Amyl alcohol = Pentanol	/	0	0	0	0
Butyl alcohol = Butanol	/	0	0	0	0
Ethyl alcohol = Ethanol	/	0	0	0	0
Isopropyl alcohol = Isopropanol	/	0	0	0	0
Methyl alcohol = Methanol	/	0	0	0	0
2-Methyl 2,4 - Pentanediol	/	0	0	0	0
<b>PHARMACEUTICAL PRODUCTS</b>					
Starch	/	0	0	0	0
Betadine yellow	/	0	0	1-2 c / 1 c	4 c
Coomassie Blue solution	0.1 g of Coomassie Blue + 18.2 mL water + 18.2 mL ethanol + 3.6 mL AAG.	0 / 0-1 c	0 / 0-1 c	3 c / 4 c	4 c
Methylene blue	/	0	2-3 c / 0	4 c	4 c
Chloroform = Trichloromethane	/	0	0	2-3 d	0
Crystal violet	4% m/m in water	1 c	4 c / 3 c	4 c	4 c
Hydrogen peroxide	/	0	0	0	0
Aqueous eosin	/	0	0 / 1-2 c	4 c	4 c
Formaldehyde = Formol (liquid)	/	0	0	0	0
Potassium iodide (KI)	10% m/m in water	0	0	0	2-3 c
Aqueous safranin	1% m/m in water	0	0	4 c	4 c
Safranin (solvent phase)	1% m/m in ethanol	0	2 c / 1 c	4 c	4 c
Gentian violet solution	/	0	1 c	4 c	4 c
Crystal violet (in alcohol)	2% m/m in ethanol	0 / 1 c	2-3 c / 3 c	4 c	4 c

INDEX	EFFECT OF THE TEST AFTER CLEANING
0	Insusceptible
1	Very slightly susceptible
2	Slightly susceptible
3	Susceptible
4	Highly susceptible

A more detailed appraisal of the results is facilitated by additional indicators:

- c, for colouration; this is related to the cosmetic appearance of the covering.
- d, for deterioration; this index is a factor that directly influences maintenance conditions of the covering.

# CLEAN CORNER SYSTEM



## AN INNOVATIVE CORNER SYSTEM...

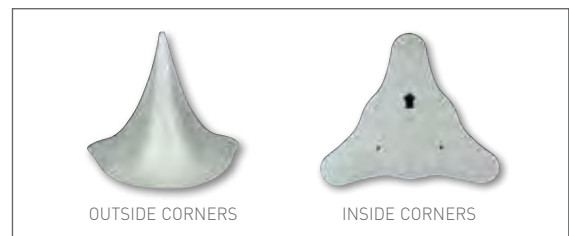
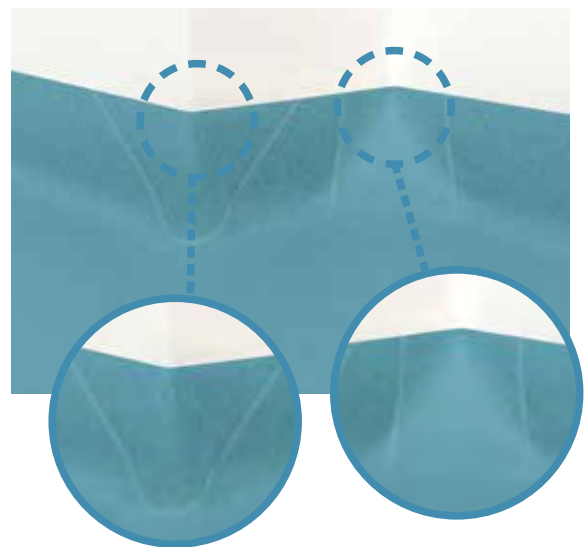
For a total and complete Ultra Clean offer, Gerflor has created the new **"Clean Corner System"**:

An exclusive solution for installing corners that aids the control of contamination.

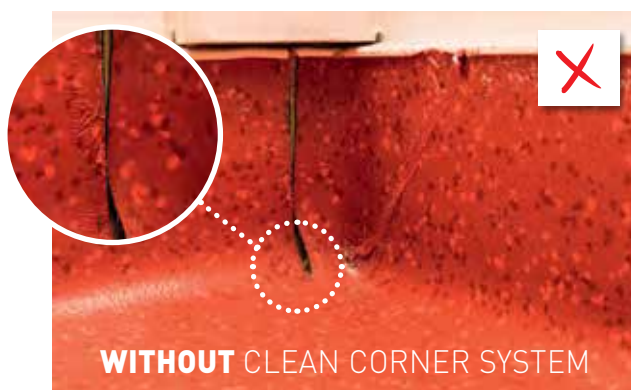
Controlling contamination, particularly in operating theatres, is a permanent battle. **It's in the angles that most hygiene issues are found:**

- ▷ the hollow-shaped interior corners make them difficult to clean and decontaminate;
- ▷ if not properly welded, they tear or sag under the weight of traffic;
- ▷ weakened by use, they lose their watertightness.

By drawing on the industry experience of professionals, Gerflor has developed the **CLEAN CORNER SYSTEM** which works exclusively with Gerflor flooring.



## ...THAT MAKES ALL THE DIFFERENCE





## FOR EXCEPTIONAL RESULTS



### WATERTIGHT

Suitable for E2- and E3-rated areas  
Easier skirting  
Limited and easy welding



### RESISTANT & LONG-LASTING

No clipping of, or lifting of, the flooring



### CLEAN

Quick and easy cleaning and decontamination  
Improved cleaning with rotary brush cleaner  
No blind spots



### VERSATILE

Suitable for all Gerflor floors (sheet vinyl)  
Suitable for all skirting heights (7 to 15 cm)  
Suitable for all supports (20 x 20 mm to 38 x 38 mm)  
Suitable for all angles (85° to 95°) with or without coving sections



### ATTRACTIVE

Neat and uniform design for all corners



### TRAINING

A period of training must be completed to acquire the techniques necessary to fit the **Clean Corner System**.

#### For more information:

Tel.: +353 87 2559660

Email: [cillian.oshea@gerflor.com](mailto:cillian.oshea@gerflor.com)

# FLOORING CERTIFICATE



## ETUDE 2276.GER.15

« Les essais réalisés dans le cadre de l'étude 2276.GER.15 selon un protocole expérimental inspiré de la norme ISO 14644-1<sup>(1)</sup> démontrent que lorsque les revêtements de sols GERFLOR Taralay Premium Osmoz et Mipolam Symbioz sont soumis à une abrasion, les niveaux d'émission particulaires mesurés correspondent à une classe de propreté ISO 4 et sont conformes aux zones de risque 4 telles que définies dans la norme NFS 90-351<sup>(2)</sup> »

Christine AH-DIP  
Chargée d'Etudes  
29/04/15

Virginie CHARBONNIER  
Responsable Assurance Qualité  
29/04/15

Lionel PINEAU  
Directeur Général et Scientifique  
29/04/15

<sup>(1)</sup> NF EN ISO 14644-1 : Salles propres et environnements maîtrisés apparentés. Partie 1 : Classification de la propreté de l'air.

<sup>(2)</sup> NFS 90-351 : Etablissements de santé – Zones à environnement maîtrisé- Exigences relatives à la maîtrise de la contamination aéroportée.

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SAS au capital de 530 000 Euros N° SIRET : 423 865 419 00026 R.C.S Marseille APE : 7120B

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# FLOORING CERTIFICATE



## ETUDE 2276.GER.15

« Les essais réalisés dans le cadre de l'étude 2276.GER.15 selon un protocole expérimental inspiré de la norme ISO 14644-1<sup>(1)</sup> démontrent que lorsque le revêtement de sols GERFLOR Mipolam Elegance EL 5 est soumis à une abrasion, les niveaux d'émission particulaires mesurés correspondent à une classe de propreté ISO 5 et sont conformes aux zones de risque 4 telles que définies dans la norme NFS 90-351<sup>(2)</sup> »

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# WALLS CERTIFICATE



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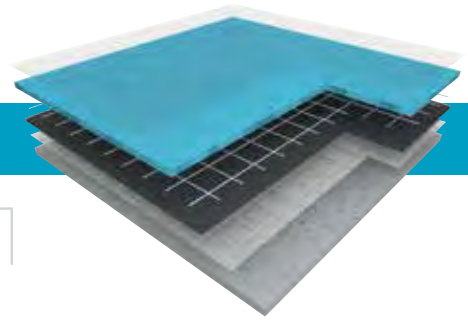
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## FLOOR & WALLCOVERINGS

# FLOOR COVERINGS

## TARALAY PREMIUM OSMOZ (Compact)



- ▷ Heterogeneous flooring with a pure PVC wear layer > 1 mm thick
- ▷ **Exceptional durability:** design pressed throughout the thickness, under 800 tonnes
- ▷ **Appearance unchanged with time:** 100% PVC wearlayer, with no transparent layer, for unbeatable soiling and scratch resistance
- ▷ **Easy to roll heavy loads over,** high indentation resistance with excellent acoustic properties and dimensional stability and suitable for heavy rolling loads: (all in bold type) reinforced structure (fibreglass grid) and very high density foam

### PARTICULARLY SUITED TO RISK 4 ENVIRONMENTS



- **Particulate class** (ISO 14644-1): ISO 4
- **Molecular emission** (ISO 16000-6): TVOC level <10 µg after 28 days
- **Antibacterial activity** -> E.Coli – S. aureus, MRSA (ISO 22196): > 99%; does not inhibit proliferation
- **Cleanability:**
  - > exceeds the requirements (EN 15883-5): over 90% reduction of the initial organic load
  - > complies with French guidelines; less than 2.5 µg residual contamination
- **Disinfectability:** complies with requirements (NF T72-281)
- **Easy to clean** due to the ProtecSol®2 treatment
- **Increased resistance to alcohol products** (see table p.15)
- **Charge potential** (EN 1815): <2 kV
- **Electrical resistance** (EN 1081):  $R_t \geq 10^9$  Ohm



4527 Bamboo



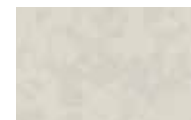
4347 Raphia



4349 Angora



3793 Cashmere Grey



4344 Ivory



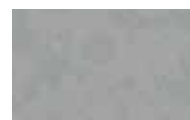
4496 Pacific Blue



8255 Golden  
Sunset



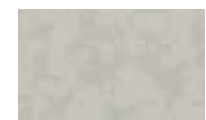
4149 Mandarin



3792 Storm Grey



4350 Elefant



4348 Alpaga



4495 Atlantic Blue



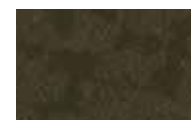
4143 Rose Shocking



4148 Scarlet Red



3791 Slate Grey



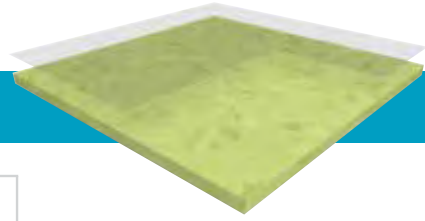
8073 Cocoa



4351 Greige



# MIPOLAM SYMBIOZ™



- ▷ Homogeneous flooring 2 mm thick
- ▷ **Durability:** abrasion group T or P
- ▷ **Plant-based plasticizer**, made from organic grain residues (wheat, corn, etc.)
- ▷ **75% sustainable or renewable raw materials**

## PARTICULARLY SUITED TO RISK 4 ENVIRONMENTS



- **Particulate class** (ISO 14644-1): ISO 4
- **Molecular emission** (ISO 16000-6): TVOC level <10 µg after 28 days
- **Antibacterial activity** -> E.Coli – S. aureus, MRSA (ISO 22196): > 99%; does not prohibit proliferation
- **Cleanability:**
  - > greater than requirements (EN 15883-5): over 90% reduction of the initial organic load
  - > complies with French guidelines; less than 2.5 µg residual contamination
- **Disinfectability:** complies with requirements (NF T72-281)
- **Easy to clean** due to the Evercare™ surface treatment
- **Increased resistance to alcohol products** (see table p.15)
- **Charge potential** (EN 1815): <2 kV
- **Electrical resistance** (EN 1081):  $R_t \geq 10^9$  Ohm



6009 Grey Stone



6008 Calico



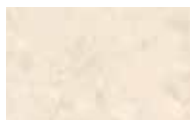
6037 Lagoon



6032 Sunshine



6004 Sandstone



6001 Cotton



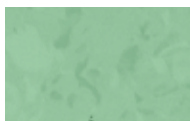
6010 Mist



6029 Cloud



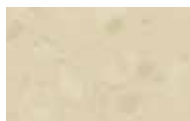
6006 Blue Sky



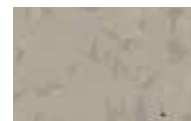
6017 Grass



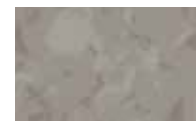
6035 Sunset



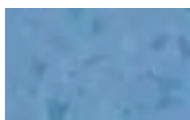
6003 Linen



6041 Clay



6039 Pebble



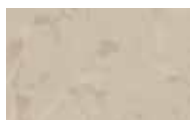
6016 Sea Blue



6007 Garden



6055 Tomato



6031 Breeze



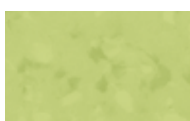
6043 Wood



6044 Sea Storm



6046 Blue Night



6027 Acacia



6048 Lavander



6034 Mole



6045 Chocolate



6059 Black Diamond

# FLOOR COVERING

## MIPOLAM ELEGANCE EL5



U4



Evercare™(1)

▶ Homogeneous conductive flooring  
2 mm thick



### PARTICULARLY SUITED TO RISK 4 ENVIRONMENTS

ISO 5

- **Designed for AIA zones** (flammable anaesthetics authorised) and other operating theatres that need conductive surfaces
- **Particulate class** (ISO 14644-1): ISO 5
- **Molecular emission** (ISO 16000-6): TVOC level <10 µg after 28 days
- **Antibacterial activity** -> E.Coli – S. aureus, MRSA (ISO 22196): > 99%; prohibits proliferation
- **Cleanability:**
  - > exceeds requirements (EN 15883-5): over 90% reduction of the initial organic load
  - > complies with French guidelines; less than 2.5 µg residual contamination
- **Disinfectability:** complies with requirements (NF T72-281)
- **Easy cleaning** with Evercare™ surface treatment
- **Increased resistance to alcohol products** (see table p.15)
- **Charge potential** (EN 1815): <2 kV
- **Electrical resistance** (EN 1081):  $10^4 \leq R_t \leq 10^6$



0350 Light Grey



0352 Grey



0351 Black



0353 Beige



0355 Green



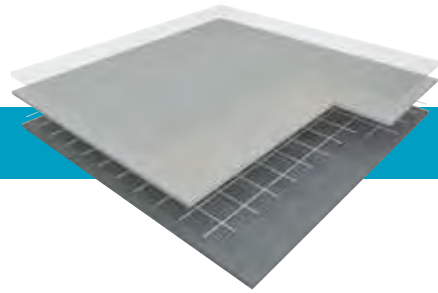
0354 Blue



(1) Evercare™ treatment available 3<sup>rd</sup> quarter 2015.



# WALLCOVERINGS



## MURAL ULTRA



- ▷ Leading wall range rated **Bs2d0**
- ▷ **High durability** due to a through-coloured pure PVC surface
- ▷ **Very high tear resistance and exceptional dimensional stability** due to the fibreglass reinforcing grid

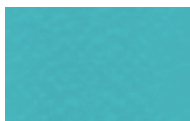
### PARTICULARLY SUITED TO RISK 4 ENVIRONMENTS



- **Particulate class** (ISO 14644-1): ISO 4
- **Molecular emission** (ISO 16000-6): TVOC level <math>< 10 \mu\text{g}</math> after 28 days
- **Antibacterial activity** -> E.Coli - S. aureus, MRSA (ISO 22196): > 99%; prohibits proliferation
- **Cleanability:**
  - > greater than requirements (EN 15883-5): over 90% reduction of the initial organic load
  - > complies with French guidelines; less than 2.5  $\mu\text{g}$  residual contamination
- **Disinfectability:** complies with requirements (NF T72-281)
- **Easy to clean** due to the Protectol® surface treatment
- **Increased resistance to alcohol products** (see table p.15)



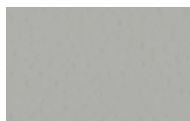
4525 Lime



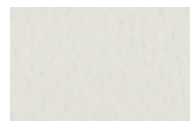
4494 Pacific



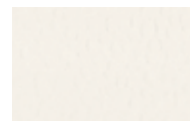
4497 Lobelia



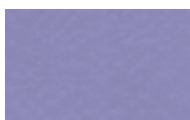
3765 Flannel



3735 Arctic



8608 Lily



4118 Violet



4150 Cranberry



4116 Apricot



4346 Sand



8253 Lemon



4345 Ecru







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