



Mipolam EL



Floors to match your imagination

Gerflor

SAMPLE SERVICE



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MIPOLAM EL: a complete range of of electrostatic discharge.

Static electricity is found everywhere: in nature, it manifests itself most often in the form of storms and lightning. It also occurs in homes and factories. It is generated when two different materials are separated, producing the transfer of electricity (charge) from one material to the other. When the materials are separated, one of them will become positively charged, and the other negatively charged.

Static electricity rarely has harmful consequences for people, occasionally resulting in an unpleasant shock. However, in some circumstances, and much more seriously, electrostatic discharge can lead to disaster. Even in small quantities, it can trigger a fire or an explosion, for example in areas where there are flammable or even explosive materials.

Similarly electrostatic discharge is becoming an increasing hazard in the electronics industry. Many components are becoming increasingly susceptible to the inherent risks of electrostatic discharge and may be damaged or even destroyed when rapid uncontrolled discharges occur.

Electrostatic discharge:

In industrial or commercial premises, electrostatic discharges (**ESD**) reduce the performance of sensitive electronic hardware. It appears that 30 to 70% of the faults in electronic components are due to **ESD**. These electrostatic discharges can also cause explosions in areas classified as explosive atmospheres (ATEX directive).

Solutions:

- limiting charge
- controlling discharges

It is advisable to institute strict measures to reduce risks. Various solutions may be implemented with the aim of limiting or even eliminating charges. The simplest solution is to provide an earth point to limit or eliminate the risks of an accumulation of electrostatic charges. The use of electroconductive flooring combined with antistatic footwear guarantees a low a body voltage generation.

The ESD risk analysis must be carried out throughout the premises, to take into account the working environment and the various types of risks associated with the processes and the sensitivity and susceptibility of the components. The elimination of electrostatic charges at source by use of **Mipolam** electroconductive floorings is an efficient solution to limit the risks associated with ESD.

Two parameters work to limit the accumulation of charges:

- Low charge generation
- Earth resistance

The characteristics of the **Mipolam EL** floorings, used in combination with appropriate footwear, minimise the generation of charges. The earth resistance guarantees effective elimination of charges.

The Mipolam EL floorings offer a complete range of both conductive (EL5) and dissipative (EL7) floorings that:

- Protect electronic equipment and components
- Protect people against the electrostatic discharge risks
- Protect premises against risks of explosion

f products for all sites sensitive to the risk

Cleanroom



*Healthcare
Intensive care and
surgical suites*



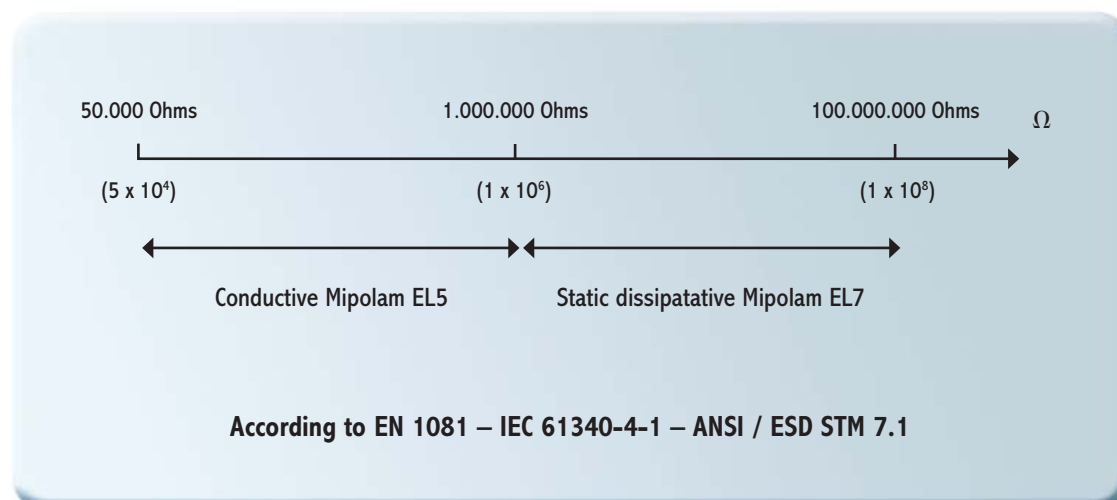
*Electronic
and high-tech
industry*



Product benefits



The range that covers all static control requirements:



- **Controlling discharges:**
Mipolam EL floorcoverings guarantee the lasting elimination of electrostatic charges, while taking into account the safety of people.

- **Low accumulation of charges:**
Mipolam EL floorcoverings guarantee a low accumulation of electrostatic charges to people and equipment.

- **Mechanical resistance:**
the homogeneous and compacted surface provides an enduring resistance to static and dynamic loads.

- **Chemical resistance:**
Mipolam EL floorcoverings display excellent resistance to chemical products such as detergents, acids and alkaline products.

- **Minimum gas emission:**
low VOC emissions.

- **Decontamination:**
Mipolam EL floorcoverings are rated as "good" in compliance with ISO 8690 the nuclear decontamination standard.

- **Fully hygienic:**
 - Fungistatic and bacteriostatic treatment throughout total thickness of flooring
 - Floorcovering is non-absorbent, impervious and non-porous
 - Can be hot welded and installed with a coved skirting for easy cleaning

- **Access flooring with laminar flow:**
Mipolam EL tiles are especially well suited to "high-tech" applications with access flooring in clean rooms with laminar flow.

- **Low risk of particulate contamination:**
the Mipolam EL tiles meet the high requirements of particulate contamination set by the electronic industry thanks to the low release of carbon particles.



Photo: Faure Ingénierie



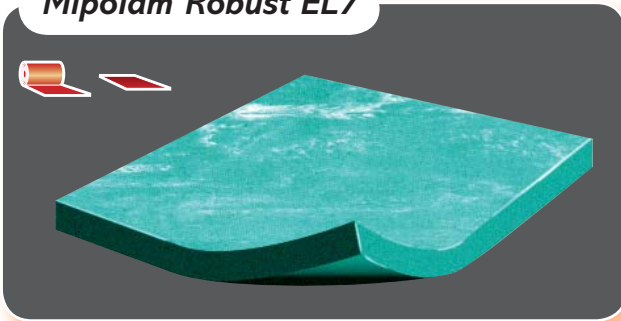
Product description and technical data

K5

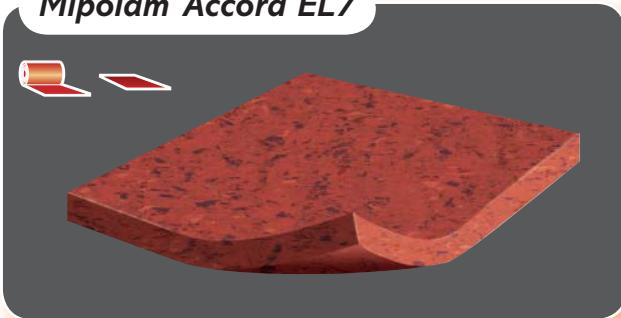
$10^6 \leq R \leq 10^8 \Omega$



Mipolam Robust EL7



Mipolam Accord EL7



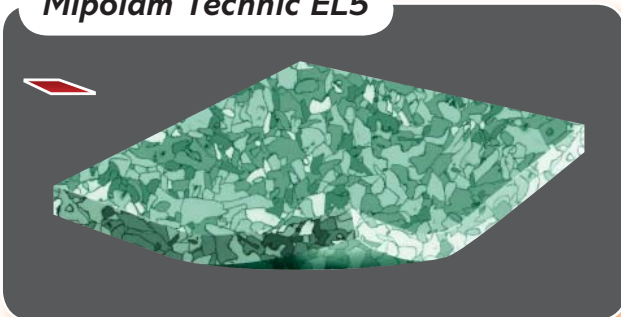
Mipolam Accord EL7 and **Mipolam Robust EL7** are antistatic ($< 2 \text{ kV}$), flexible homogeneous floorcoverings available in both sheet and tile form. Calendered and compacted with permanent anti-static properties. They act as a continuous dissipater ($10^6 \leq R \leq 10^8 \Omega$) and comply with EN 649 and EN 1081.

K5

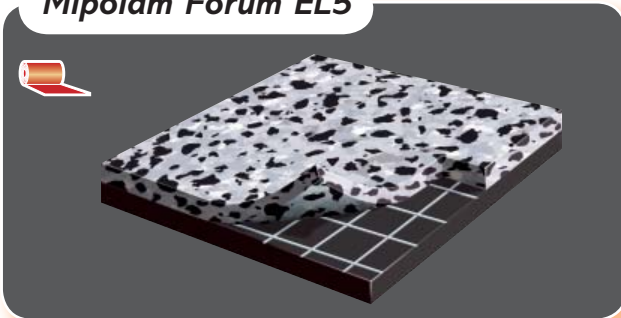
$5 \times 10^4 \leq R \leq 10^6 \Omega$



Mipolam Technic EL5



Mipolam Forum EL5



Mipolam Technic EL5 is a static-conductive, flexible homogeneous vinyl floorcovering with an electrical resistance of $5 \times 10^4 \leq R \leq 10^6 \Omega$ available in tiles. The conductive carbon coated PVC pellets create the permanent static-conductive properties. It complies with EN 649 and EN 1081.

Mipolam Forum EL5 is a static-conductive floorcovering with an electrical resistance of $5 \times 10^4 \leq R \leq 10^6 \Omega$. Its calendered homogeneous wearlayer is reinforced with a glassfibre grid and a calendered backing of conductive carbon. It is available in sheet form and treated with Sanosol[®], an anti-bacterial and fungicidal treatment. It complies with EN 649 and EN 1081.

			Mipolam Robust EL7	Mipolam Accord EL7	Mipolam Technic EL5	Mipolam Forum EL5
DESCRIPTION						
Total thickness	EN 428	mm	2	2	2	2
Weight	EN 430	g/m ²	3400	3400	3150	2700
Width / Length of sheet	EN 426	cm/ml	200 / 20	200 / 20	-	200 / 20
Tile size	EN 427	mm	608 x 608	608 x 608	608 x 608	-
Number of tiles per package	-	-	20	20	20	-
CLASSIFICATION						
Standard / product specification	EN 649	-	Homogeneous vinyl flooring	Homogeneous vinyl flooring	Homogeneous vinyl flooring	Heterogeneous vinyl flooring
European classification	EN 685	class	34-43	34-43	34-43	34-43
K rating	-	-	K5	K5	K5	K5
Fire rating	EN 13501-1	-	Bfl-s1	Bfl-s1	Bfl-s1	Cfl-s1
	ASTM 648	-	Class 1	Class 1	Class 1	Class 1
Electrical resistance	EN 1081	Ω	10 ⁶ ≤ R ≤ 10 ⁸	10 ⁶ ≤ R ≤ 10 ⁸	5 x 10 ⁴ ≤ R ≤ 10 ⁶	5 x 10 ⁴ ≤ R ≤ 10 ⁶
	CEI 61340-4-1	Ω	10 ⁶ ≤ R ≤ 10 ⁹	10 ⁶ ≤ R ≤ 10 ⁹	R ≤ 10 ⁶	R ≤ 10 ⁶
	ASTM / ESD 7.1	Ω	10 ⁶ ≤ R ≤ 10 ⁸	10 ⁶ ≤ R ≤ 10 ⁸	2.5 x 10 ⁴ ≤ R ≤ 10 ⁶	2.5 x 10 ⁴ ≤ R ≤ 10 ⁶
Static electrical propensity	EN 1815	V	< 200	< 200	< 20	< 20
	CEI 61340-4-5	V	< 200	< 200	< 20	< 20
Slip resistance dry	pr EN 13893	-	DS	DS	DS	DS
Slip resistance wet	DIN 51 130	-	R 9	R 9	R 9	R9
PERFORMANCES						
Wear resistance	EN 660.1	mm	≤ 0.30	≤ 0.15	≤ 0.15	≤ 0.08
Wear group	EN 649		M	P	P	T
Dimensional stability	EN 434	%	sheet ≤ 0.40 tile ≤ 0.25	sheet ≤ 0.40 tile ≤ 0.25	≤ 0.25	≤ 0.40
Residual indentation	EN 433	mm	≤ 0.10	≤ 0.10	≤ 0.10	≤ 0.10
Thermal conductivity	EN 12 524	W/(m.K)	0,25	0,25	0,25	0,25
Colour fastness	EN 20 105 - B02	-	≥ 6	≥ 6	≥ 6	≥ 6
Chemical resistance	EN 423	-	Good	Good	Good	Good
Anti bacterial and fungicidal	EN ISO 846	-	Yes	Yes	Yes	Sanosol®



Installation

Laying is under the responsibility of installer. Installation has to be in accordance with the state of art. Technical installation guidelines are available from our technical department.

Maintenance

Maintenance should be carried out regularly to retain the appearance and durability of the floor. Further maintenance instructions are available upon request.



Rubber leaves indelible stains on vinyl floorings: do not use mats with rubber backing and replace tubular furniture feet with those made of PVC polyamide.