



# GT DECK



## TECHNICAL DATA SHEETS



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# DIRECTORY



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# GT DECK CLEANROOM FLOORS



Guardtech offer a range of flooring solutions to best suit the needs of your application. Whether it's budget, lead time or performance that matters most, Guardtech provide a comprehensive choice of flooring options to ensure your process requirements are achieved.

From our more economical homogeneous sheet and tile floor covering to the more commonly used ESD vinyl, through to our elite-level raised access flooring solution, the Guardtech Group's Directors, Design Engineers and Installation team have worked together to carefully select four industry-leading filtration options for your consideration.

Read on to discover the benefits and compromises of the different choices we have, then use this guide to make the most informed flooring choice possible.

Let Guardtech take your operation to the next level.



## DECK MAX

GT Deck Max is Guardtech's elite-level flooring solution – Raised Access Flooring ideal for the most demanding controlled environments, including Semiconductor and Pharmaceutical applications.



## DECK PRO

Ultra smooth, liquid-rich, chemical and impact-resistant self-leveling epoxy resin flooring solution, GT Deck Pro is a strong choice for environments that need static control and favourable low-friction properties.



## DECK PLUS

High-performance vinyl flooring designed to minimise or eliminate the risk of Electro Static Discharge (ESD) by facilitating a uniform flow of static electricity directly to a ground point.



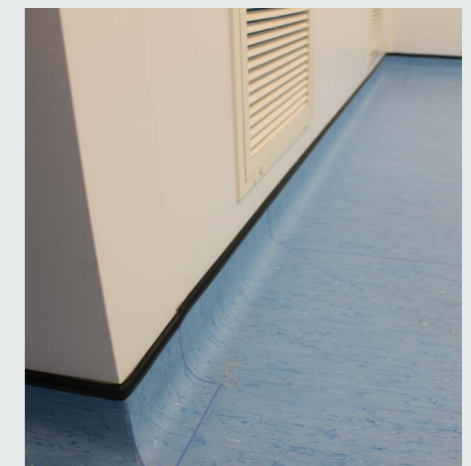
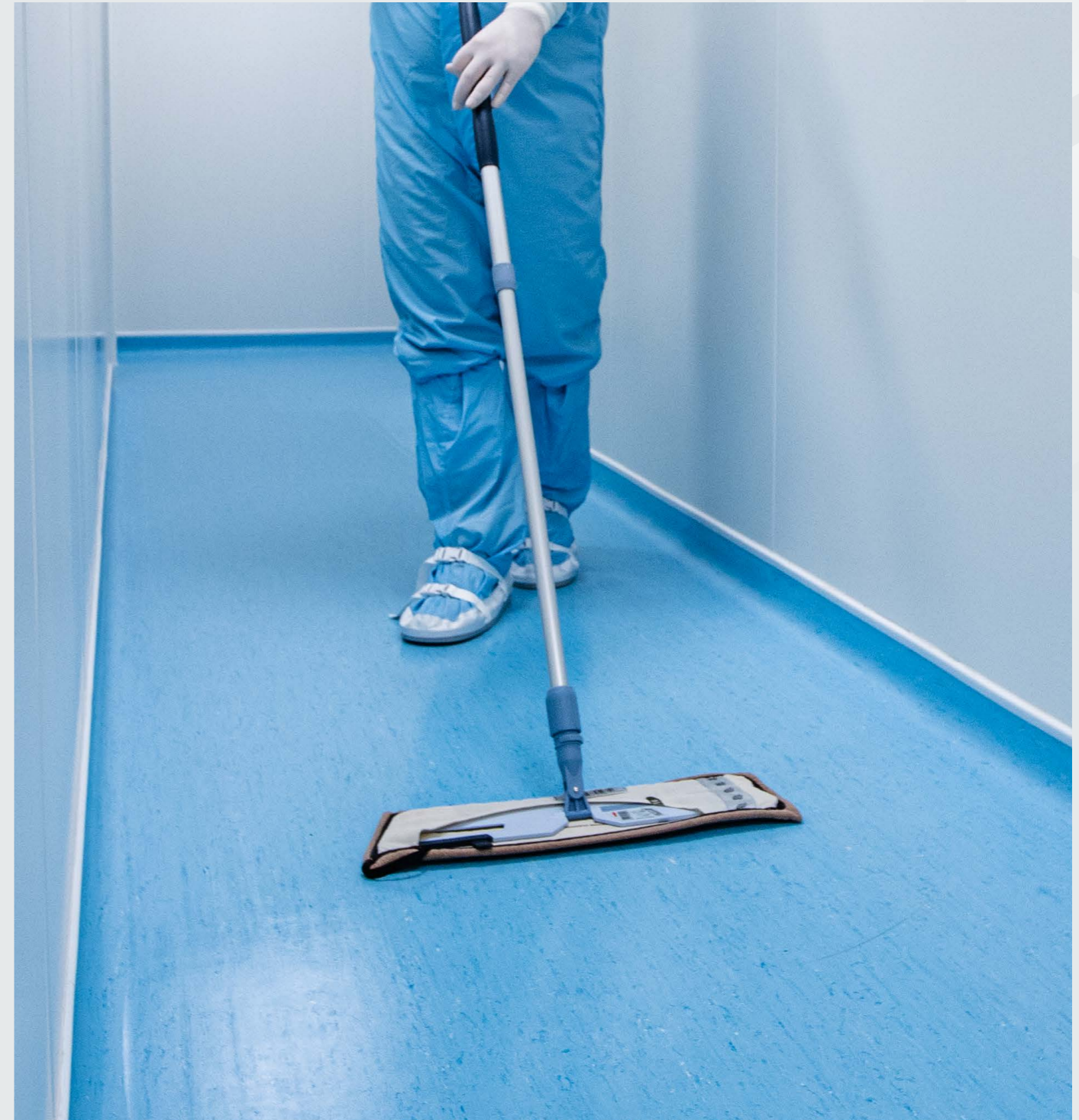
## DECK LITE

An attractive, high-performance, heavy-duty homogeneous sheet-and-tile floor covering with a polyurethane reinforcement for low-cost, lifetime, polish-free maintenance.



## DECK FIRE

This product range does not currently include a Fire Rated solution. Please consult a Guardtech rep for more information on your fire safety options.





# GT DECK MAX



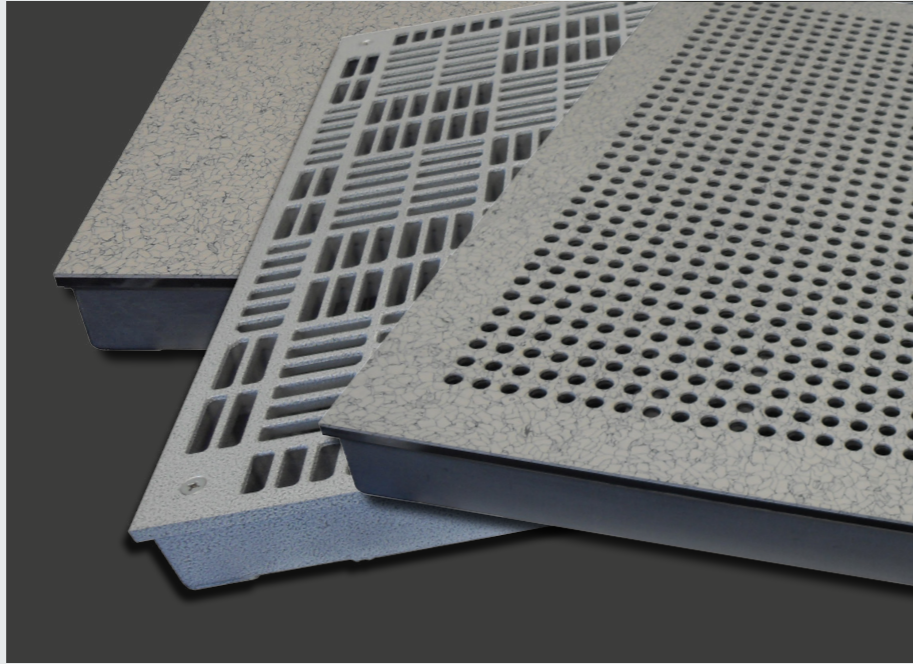
GT Deck Max is Guardtech's elite-level flooring solution – Raised Access Flooring ideal for the most demanding controlled environments, including Semiconductor and Pharmaceutical applications.

GT Deck Max is a Raised Access Flooring solution ideal for the most demanding controlled environments, including Semiconductor and Pharmaceutical applications.

Each flooring panel is die-cast, milled and finished to a high specification that exceeds all the requirements of controlled environments.

For optimum room configuration and flexibility, the range of panels and gratings are completely interchangeable and includes:

- Solid Panels
- Perforated Panels
- Grating Panels
- Special Purpose Panels



Solid Panel



## SOLID PANEL

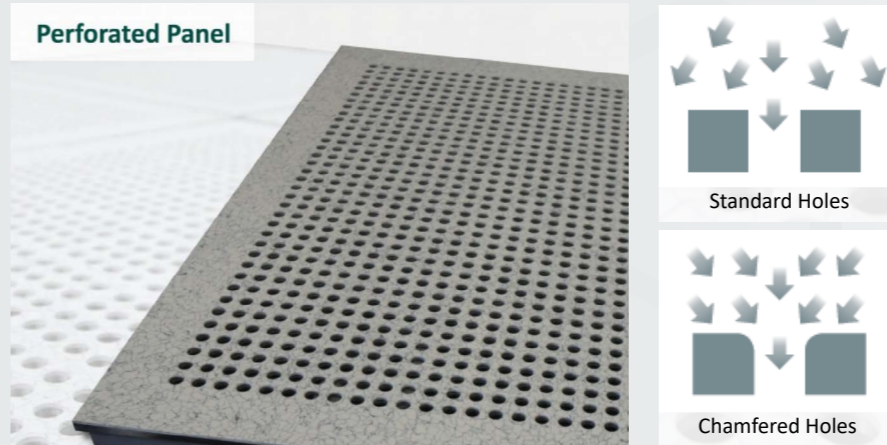
Solid Panels are designed for use in areas where extremely heavy loads are to be placed. The unique rib structure provides optimum weight dispersion to achieve minimum deflection and maximum load-bearing capacities for placement of manufacturing equipment and tool moves-ins.

TYPE	DIMENSION (MM)	CONCENTRATED LOAD 1" INDENTOR @ 1/2 EDGE	FINISH TYPE
STANDARD	600 x 600 x 39(T)	550 kgf / 2.0 mm deflection	1. PVC Tile
	600 x 600 x 39(T)	650 kgf / 2.0 mm deflection	- Conductive Tile - Static Dissipative Tile
	600 x 600 x 44(T)	850 kgf / 2.0 mm deflection	2. E-Coating
	600 x 600 x 48(T)	1,000 kgf / 2.0 mm deflection	- Black, Silver colours
HEAVY DUTY	600 x 600 x 39(T)	750 kgf / 2.0 mm deflection	3. Epoxy powder
	600 x 600 x 48(T)	1,300 kgf / 2.0 mm deflection	- Conductive powders (Gray, Black colours)
	600 x 600 x 48(T)	1,500 kgf / 2.0 mm deflection	- Non-conductive colours (Ivory, Silver colours)
	24" x 24"x 1.89"(T)	2,000 lbs / 2.0 mm deflection	
	24" x 24"x 1.89"(T)	3,000 lbs / 2.0 mm deflection	4. Ni-Cr plating

### Advantages

- High load-bearing capacity with low deflection
- Interchangeable with perforated and grating panels
- Wide variety of finishing materials • Class A building material (non-combustible) • Long life cycle for economical usage

## PERFORATED PANEL



Perforated Panels are designed to provide a smooth air flow from the ceiling to the floor with 1,296 or 1,024 chamfered holes. The holes provide nominal 18-38% open area in a non-directional pattern for airflow requirements.

Perforated Panels can effectively reduce air turbulence by chamfering the sharp and uneven drilled holes on the surface of panels.

### Advantages

- High load-bearing capacity with low deflection
- Interchangeable with perforated and grating panels
- Wide variety of finishing materials
- Class A building material (non-combustible)
- Long life cycle for economical usage

## BENEFITS & COMPROMISES

### Benefits

- Promotes unidirectional airflow and aids uniformity
- Provides an accessible service void for utilities
- Hard-wearing construction, high load-bearing capacity
- Wide variety of finishing materials
- Long life cycle

### Compromises

- Reduces internal ceiling height
- Cannot be covered
- Non-waterproof
- Higher price point

TYPE	DIMENSION (MM)	CONCENTRATED LOAD 1" INDENTOR @ 1/2 EDGE	FINISH TYPE	OPEN RATIO
STANDARD	600 x 600 x 39(T)	500 kgf / 2.0 mm deflection	1. PVC Tile	18~22% (1,296)
	600 x 600 x 39(T)	600 kgf / 2.0 mm deflection	- Conductive Tile - Static Dissipative Tile	18~22% (1,296)
	600 x 600 x 44(T)	850 kgf / 2.0 mm deflection	2. E-Coating	18~22% (1,024)
	600 x 600 x 48(T)	1,000 kgf / 2.0 mm deflection	- Black, Silver colours	18~22% (1,296)
HEAVY DUTY	600 x 600 x 39(T)	750 kgf / 2.0 mm deflection	3. Epoxy powder	18~22% (1,296)
	600 x 600 x 48(T)	1,300 kgf / 2.0 mm deflection	- Conductive powders (Gray, Black colours)	18~22% (1,296)
	600 x 600 x 48(T)	1,500 kgf / 2.0 mm deflection	- Non-conductive colours (Ivory, Silver colours)	18~22% (1,024)
	24" x 24"x 1.89"(T)	2,000 lbs / 2.0 mm deflection		18~22% (1,024)
	24" x 24"x 1.89"(T)	3,000 lbs / 2.0 mm deflection	4. Ni-Cr plating	18~22% (1,024)

## APPLICATIONS



Pharmaceuticals   Semiconductor   Graphene   Cell & Gene   Battery   Laser & Optical

GT Deck Max suits the most demanding of applications, typically where particulate needs to be controlled to extremely tight tolerances. This often includes cleanrooms with an ISO5 or 6 classification, as well as those required to comply with cGMP conditions outlined in EU GMP Annex 1, ISO 14644-1 and US FS209E.

## GRATING PANEL

### Grated Panel



GT Deck Max Grating Panels are designed for the areas where maximum airflow is required, and have grid pattern generates a minimum vibration from rolling loads and foot traffic.

#### Advantages

- Maximum air flow from 41% to 51%
- Interchangeable with solid and perforated panels
- High-load bearing capacity with low deflection
- Wide variety of finishing materials
- Class A1 building material (non-combustible)

TYPE	DIMENSION (MM)	CONCENTRATED LOAD 1" INDENTOR @ 1/2 EDGE	FINISH TYPE	OPEN RATIO
STANDARD	600 x 600 x 41(T)	500 kgf / 2.0 mm deflection	1. E-Coating - Black, Silver colours	26%, 45%
	600 x 600 x 44(T)	600 kgf / 2.0 mm deflection	2. Epoxy powder - Conductive powders (Gray, Black colours) (Ivory, Silver colours)	51%
	24" x 24" x 1.89"(T)	2,000 lbs / 2.0 mm deflection		54%
HEAVY DUTY	600 x 600 x 50(T)	1,000 kgf / 2.0 mm deflection	3. Ni-Cr plating	51%
	600 x 600 x 48(T)	1,000 kgf / 2.0 mm deflection		51%

## PEDESTALS

Pedestals are designed and made of either aluminum or steel as well as divided into three product groups (Standard Duty, Heavy Duty and Ultra Heavy Duty) depending on the requirements of the project.

#### Advantages

- Non-ferrous material
- Can easily be cut on-site
- Exceptional axial load performance



UV Pedestal



Aluminium Pedestals



Aluminium Post

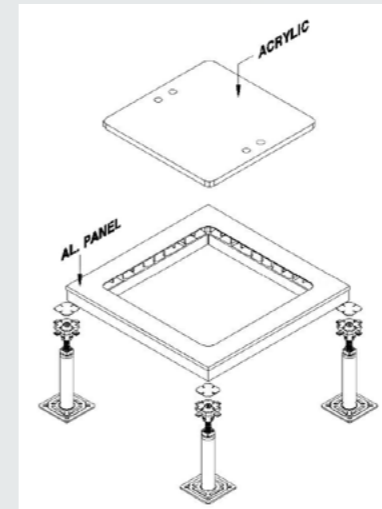


Steel Pedestals

## SPECIAL PURPOSE PANELS

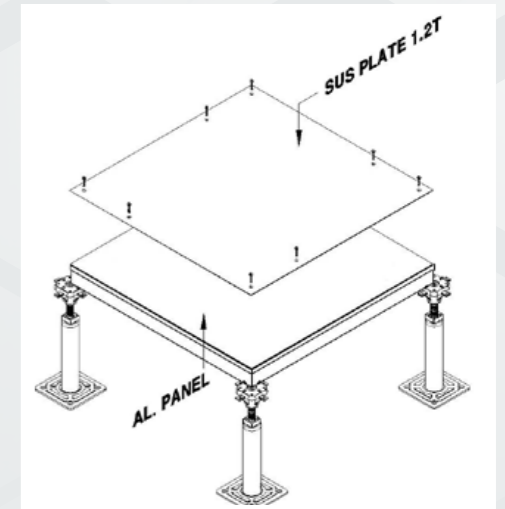
### Acrylic Insert Panels

The acrylic inserts are used as Vision or Access panels, which are produced to the customer's specified size to allow you to see beneath the panel from above, or to allow easy access.



### Stainless Steel Panels

The 1.2mm (T) Stainless Steel (SUS) finished panels are effectively used for the path of movement of automated guided vehicle (AGV), is to prevent scratches on the surface of panel caused by regular movement of equipment.

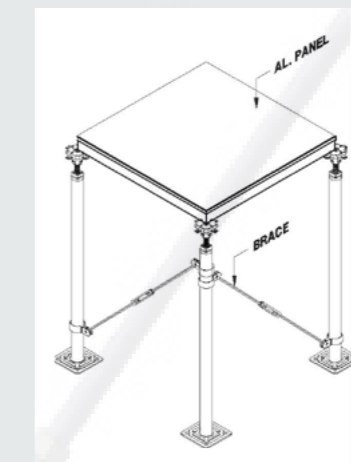


## STRINGERS



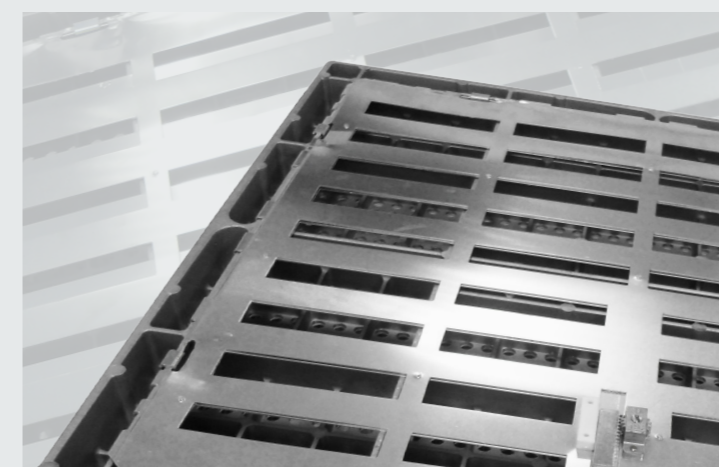
Stringers are extruded aluminum profiles designed to fit between and span the pedestal heads to provide lateral support to the system. The stringers do not in any way determine the spacing requirements between the pedestals as the holes are elongated (Slotted) to allow them to conform to the size of the panels.

## BRACING

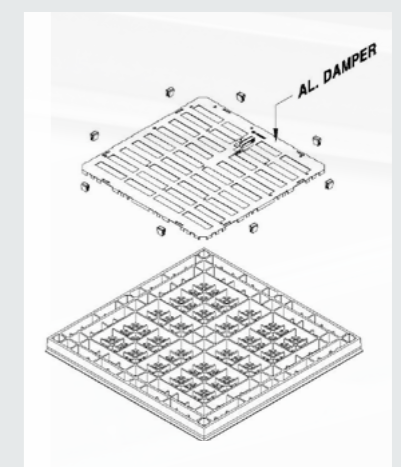


Bracing, which is made of either aluminum or steel materials, is clamped at pedestal, to pedestal, or pedestal to concrete foundation, to prevent lateral movement or any potential dislocation of structure system caused by possible a little tiny bit of vibration at the upper/lower side of the structure system.

## ALUMINUM DAMPERS



Aluminum Dampers are available for perforated and grating panels to adjust the air-flow through the floor to balance a room around tools and work stations. They are adjustable from 0-100% open in incremental settings.





# GT DECK PRO

Ultra smooth, liquid-rich, chemical and impact-resistant self-leveling epoxy resin flooring solution, GT Deck Pro is a strong choice for environments that need static control and favourable low-friction properties.



GT Deck Pro is a liquid-rich, free-flowing epoxy resin flooring system.

The system consists of a resin, curing agent and graded coarse aggregates. It is available in 2 mm and 3 mm thicknesses.

GT Deck Pro cures to a hard, aesthetically pleasing surface that exhibits excellent impact and chemical-resistance.

Ultra-smooth, liquid-rich, chemical and impact-resistant self-leveling floors, GT Deck Pro is a strong choice for environments that need static control and low-friction flooring and is specifically designed for those applications where flooring with a smooth, seamless, dense, stain-resistant finish with good stain-resistance is required.



<b>Tensile Strength</b>	1,900 psi
<b>Flexural Strength</b>	3,860 psi
<b>Flexural Modulus of Elasticity</b>	5.2 x 10 <sup>5</sup> psi
<b>Hardness</b>	80 to 85
<b>Indentation</b>	Pass
<b>Abrasion Resistance</b>	0.1 gm max. weight loss
<b>Coefficient of Friction</b>	0.81 (dry)
<b>Flammability</b>	Self-extinguishing Extent of burning 0.25 in. max.
<b>Thermal Coefficient of Linear Expansion</b>	5.3 x 10 <sup>-5</sup> in./in. °C
<b>Water Absorption</b>	0.2%
<b>Heat Resistance Limitation</b>	140°F/60°C (continuous exposure) 200°F/93°C (intermittent exposure)
<b>VOC Content</b>	20 g/l
<b>Cure Rate</b>	36 hours (@ 77°F/25°C) for foot traffic & light operations 48 to 72 hours for normal operations

## TECHNICAL FEATURES

### PRODUCT INFORMATION

#### MOISTURE BARRIER

To ensure long-term adhesion to concrete slabs in the absence of a proper vapor barrier, the use of Guardtech's recommended grouting system is required with strict adherence to application instructions.

#### COVE BASE

To provide for an integral seal at the joint between the floor and the wall, Cove Bases in heights from 2 to 6 in./5 to 15cm may be specified.

#### SUBSTRATE

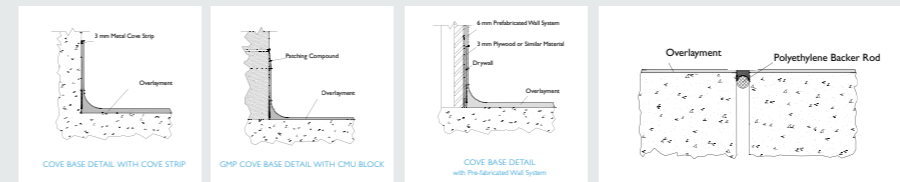
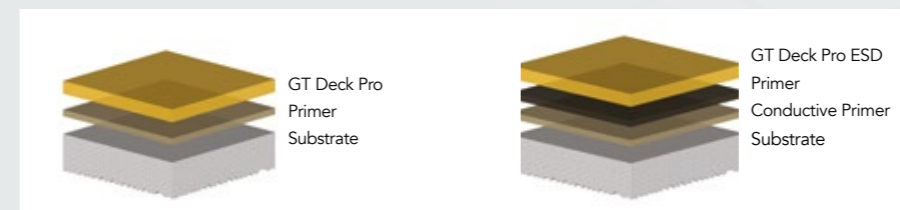
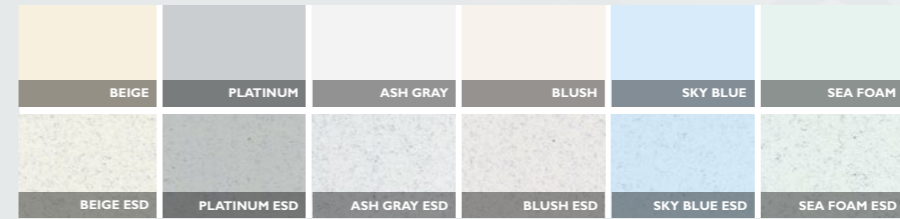
With the appropriate primer, GT Deck Pro is suitable for application over concrete, wood, brick, quarry tile and metal.



## SWATCH OPTIONS

Long-lasting, super-clean, lustrous floor protection. An ultra-smooth, chemical and impact-resistant formulation for areas requiring static control and a low friction surface.

GT Deck Pro is a leading choice for cleanroom environments and offers a sleek and clean look.



### PRO ESD v PRO COMPARISON

PROPERTIES	PRO ESD	PRO
<b>Abrasion Resistant</b>	GOOD	GOOD
<b>Chemical Resistant</b>	GOOD	GOOD
<b>High Traffic</b>	GOOD	GOOD
<b>Low Odour</b>	GOOD	GOOD
<b>Water Resistant</b>	GOOD	GOOD
<b>Wear Resistant</b>	GOOD	GOOD
<b>High Gloss</b>	SUPERIOR	SUPERIOR

PROPERTIES	PRO ESD	PRO
<b>Fire Resistant</b>	GOOD	GOOD
<b>Smooth Finish</b>	SUPERIOR	SUPERIOR
<b>ESD/Conductive</b>	SUPERIOR	N/A
<b>Fast Installation (&lt;2 days)</b>	SUPERIOR	SUPERIOR
<b>Easy to Clean</b>	GOOD	GOOD
<b>Stain Resistant</b>	GOOD	GOOD

## BENEFITS & COMPROMISES

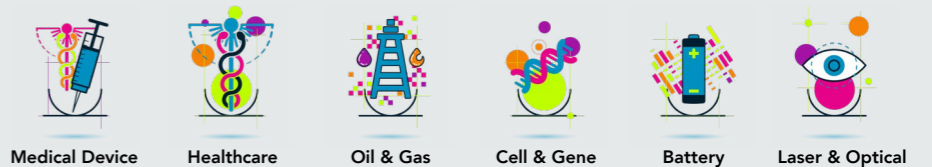
### Benefits

- Various floor-to-wall coving options
- Continuous substrate with no welded joints
- Hard-wearing – will withstand pallet truck usage
- Impervious to water penetration
- GT Pro ESD – static dissipative solution
- Non-slip

### Compromises

- More expensive than vinyl cleanroom flooring
- Not as acoustically absorbent as vinyl
- Preparation is more extensive

## APPLICATIONS



GT Deck Pro cleanroom flooring suits a wide variety of applications in a diverse range of sectors. Whilst it may not boast the airflow and accessibility appeal of GT Deck Max, this option offers the best all-round performance for any application seeking a durable, high-performance epoxy resin solution.



# GT DECK PLUS



High-performance vinyl flooring designed to minimise or eliminate the risk of Electro Static Discharge (ESD) by facilitating a uniform flow of static electricity directly to a ground point.

GT Deck Lite is a high-performance vinyl flooring designed to minimise or eliminate the risk of Electro Static Discharge (ESD).

It has been specifically engineered to combat this problem at source, by facilitating a uniform flow of static electricity directly to a ground point. The

collection covers all major applications, combining the hard-wearing, decorative qualities that the Guardtech Group range is renowned for with the benefits of static control properties.

These floor coverings are ideal for use in electronic manufacturing and healthcare facilities.



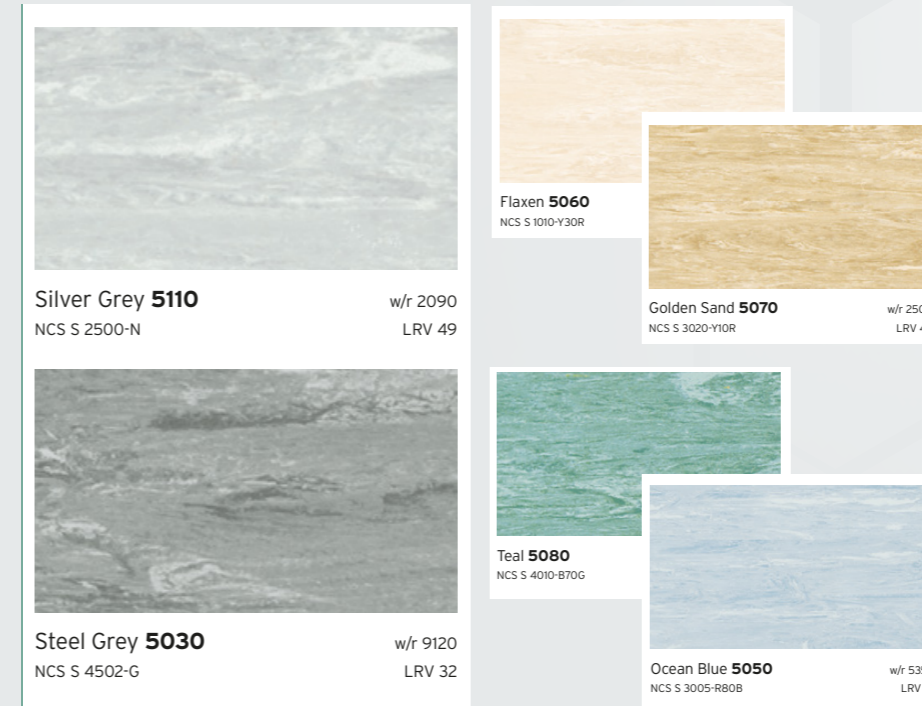
## TECHNICAL FEATURES

TECHNICAL DATA	STANDARDS	GT DECK PLUS PALETTE SD	GT DECK PLUS FINESSE SD	GT DECK PLUS SD
<b>PRODUCT FORMAT</b>				
Gauge	ISO 24346 [EN 428]	2.0mm	2.0mm	2.0mm
Sheet Size	ISO 24341 [EN 426]	2m x 20m	2m x 20m	2m x 20m
Tile Size	ISO 24343 [EN 427]	-	608mm x 608mm	608mm x 608mm
Total Weight	ISO 23997 [EN 430]	3030g/m <sup>2</sup>	3030g/m <sup>2</sup>	3400g/m <sup>2</sup>
<b>PERFORMANCE REQUIREMENTS*</b> <span style="float: right;">*(All SD products require minimum 40% RH)</span>				
General Performance	ISO 10581 [EN 649]	Conforms	Conforms	Conforms
Use Area	ISO 10874	34, 43	34, 43	34, 43
Slip Resistance	EN 13893	Class DS	Class DS	Class DS
Binder Content	ISO 10581	Type I	Type I	Type I
Abrasion Resistance	EN 660-2	Group P	Group P	Group M
Reaction to Fire	EN 13501-1	Class Bfl-S1	Class Bfl-S1	Class Bfl-S1
Static Electrical Propensity	EN 1815	<2.0kV Classified as 'antistatic'	<2.0kV Classified as 'antistatic'	<2.0kV Classified as 'antistatic'
Electrical Resistance	EN 1081 R1/R2	1 x 10 <sup>6</sup> - 1 x 10 <sup>9</sup> ohms	1 x 10 <sup>6</sup> - 1 x 10 <sup>9</sup> ohms	1 x 10 <sup>6</sup> - 1 x 10 <sup>9</sup> ohms
<b>SUSTAINABILITY</b>				
BRE Green Guide		A+ Generic	A+ Generic	A+ Generic
Indoor Air Comfort Gold		Eurofins certified product	Eurofins certified product	Eurofins certified product
FloorScore		Certified	Certified	Certified



## SWATCH OPTIONS

GT Deck Plus comes in a range of different colour schemes.



## BENEFITS & COMPROMISES

### Benefits

- Eliminates or minimises the risk of Electro Static Discharge (ESD)
- Hard-wearing flooring solution
- Colour matched welds on all joints
- More cost-effective than resin or raised access flooring

### Compromises

- Lower overall level of quality than GT Deck Max and GT Deck Pro options
- Not as eco-friendly as other solutions
- More difficult to repair than other solutions

## PRODUCT FEATURES

### HOMOGENEOUS CONSTRUCTION

Properties are present throughout the product, guaranteeing a consistent and effective appearance and performance.

### WELD FOR EXTRA PROTECTION

Weld to create a completely impervious floor, offering no sanctu-

ary to dirt and bacteria.

### HIGH PERFORMANCE

Excellent abrasion and chemical resistance.

### LONG-TERM SOLUTION

The closed surface and high vinyl content is easy and economical to

maintain, ensuring the floor will go on looking good and performing well for years. A long-term solution to the ESD problem.

### VERSATILE

GT Deck Plus can be used in conjunction with static control clothing & footwear, wrist & heel straps; special work stations, dissipative packaging & sealing, ionisers & humidity controllers.

## APPLICATIONS



GT Deck Plus is a versatile cleanroom flooring solution suitable for a significant number of different industries using controlled environments as part of their process. GT Deck Plus is most appropriate for applications with a requirement to eliminate the possibility of Electro Static Discharge (ESD).



# GT DECK LITE



An attractive, high-performance, heavy-duty homogeneous sheet-and-tile floor covering with a polyurethane reinforcement for low-cost, lifetime, polish-free maintenance.

GT Deck Lite is an attractive, high-performance, heavy-duty homogeneous sheet-and-tile floor covering with a polyurethane reinforcement for low-cost, lifetime, polish-free maintenance.

Featuring a directional duotone marbled decoration, with mar-

bled highlight tones, GT Deck Lite is available in a broad palette of vibrant shades.

Demonstrating outstanding durability and abrasion resistance, GT Deck Lite a cost-effective flooring solution that is recommended for use in a wide range of applications.



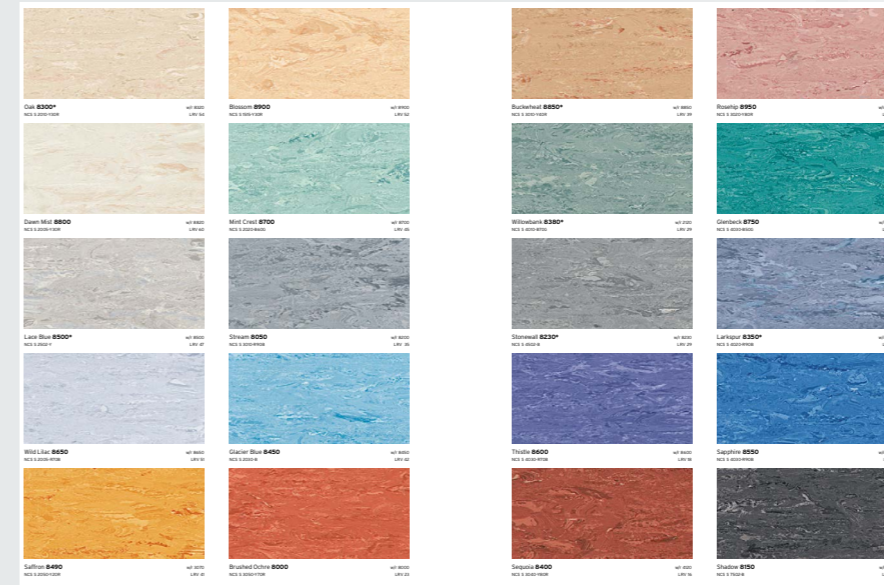
## TECHNICAL FEATURES

<b>Gauge</b>	EN 428/ISO 24346	2.0mm / 2.5mm
<b>Roll Size</b>	EN 426/ISO 24341	2.0mm: 2m x 20m = 40m <sup>2</sup> 2.5mm: 2m x 15m = 30m <sup>2</sup>
<b>Tile Size</b>	EN 427/ISO 24342	2.0mm: 300mm x 300mm = 4.5m <sup>2</sup> / 2.0mm: 608mm x 608mm = 5.17m <sup>2</sup> 2.5mm: 300mm x 300mm = 3.6m <sup>2</sup>
<b>Total Weight</b>	EN 430/ISO 23997	2.0mm: 3550g/m <sup>2</sup> 2.5mm: 4552g/m <sup>2</sup>
<b>General Performance</b>	EN 649/EN ISO 10581	Conforms
<b>Reaction to Fire</b>	EN 13501-1	Class Bfl-S1
<b>Abrasion Resistance</b>	EN 660-2	Group M
<b>Binder Content</b>	EN ISO 10581	Type II
<b>Slip Resistance</b>	EN 13893	Class DS
<b>Residual Indentation</b>	EN 433/ISO 24343-1	≤0.10MM
<b>Impact Sound Reduction</b>	EN ISO 10140-3	2dB
<b>Static Electrical Propensity</b>	EN 1815	≤ 2.0kV Classified as 'antistatic'
<b>Resistance to Chemicals</b>	EN 423/ISO 26987	Good resistance
<b>Light Fastness</b>	ISO 105-B02	≥6
<b>Castor Chair (continuous use)</b>	EN 425/ISO 4918	Suitable
<b>Bacterial Resistance</b>	ISO 846 Part C	Does not favour growth
<b>Ease of Radioactive Decontamination</b>	ISO 8690	Excellent



## SWATCH OPTIONS

GT Deck Lite comes in a range of different colour schemes – the most commonly applied being Glacier Blue, Wild Lilac and Sapphire.



## PRODUCT FEATURES

### HYGIENE

GT Deck Lite vinyl flooring is a continuous, impervious and hygienic flooring solution which can be confidently cleaned in accordance with recommended maintenance procedures and approved maintenance products.

The implementation of an effective cleaning regime is the most important defence against infection.

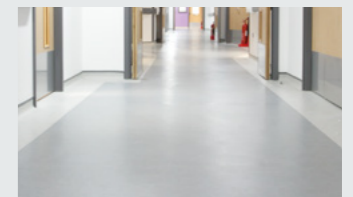
### CLEANING

GT Deck Lite is compatible for use with the most commonly used alco-based hand gels and is suitable for steam cleaning on a

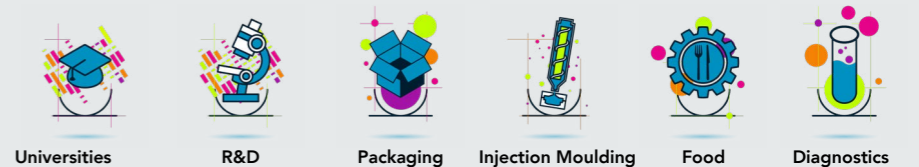
periodic basis.

### LONG LASTING

GT Deck Lite features a high quality, cross-linked polyurethane reinforcement, UV cured to provide a low-cost, polish-free maintenance regime for the lifetime of the flooring.



## APPLICATIONS



GT Deck Lite suits the least demanding of applications – most commonly laboratories or non-classified controlled environments.

## BENEFITS & COMPROMISES

### Benefits

- Wide choice of different swatch options
- Hard-wearing flooring solution
- Colour matched welds on all joints
- More cost-effective than resin or raised access flooring

### Compromises

- Lower overall level of quality than GT Deck Max and GT Deck Pro options
- Not as eco-friendly as other solutions
- More difficult to repair than other solutions





# QUICK-LOOK COMPARISON GUIDE

## FEATURES



FEATURES	MAX	PRO	PLUS	LITE
Raised access (for service void)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coving option	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Waterproof	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Anti-ESD (Electro Static Discharge) option	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Variety of colour swatch options	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Slip resistant	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
UV cured	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Abrasion resistant	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Long-lasting solution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Homogeneous system	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Promotes unidirectional airflow	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>





Guardtech  

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group

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