



GT DECK



TECHNICAL DATA SHEETS



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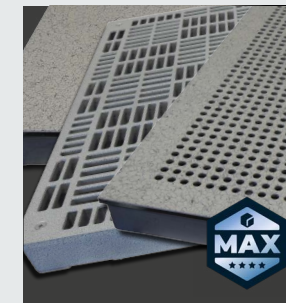
Unit C The Brocks Business Park, Homefield Road, Haverhill, Suffolk, CB9 8QP



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.



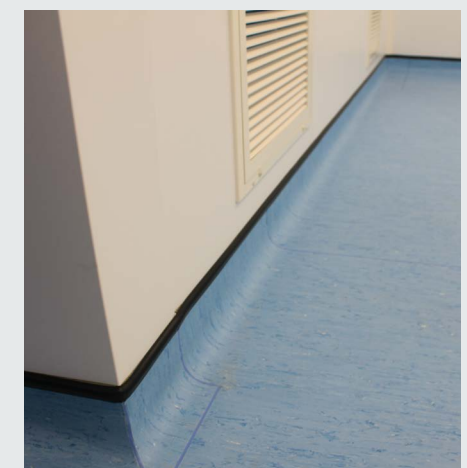
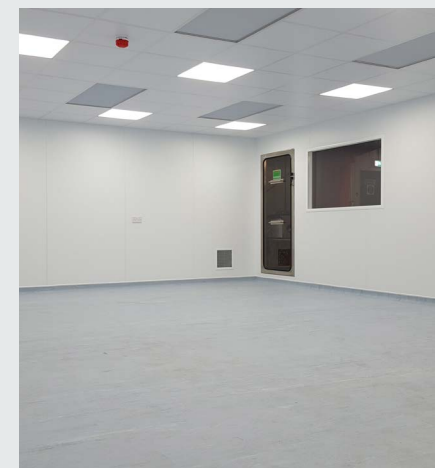
DECK LITE

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.

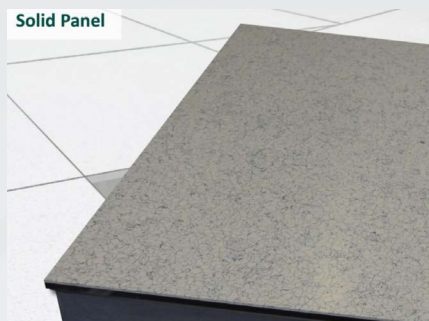
GT Deck Max is a Raised Access Flooring solution ideal for the most demanding controlled environments, including Semiconductor and Pharmaceutical applications.

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:

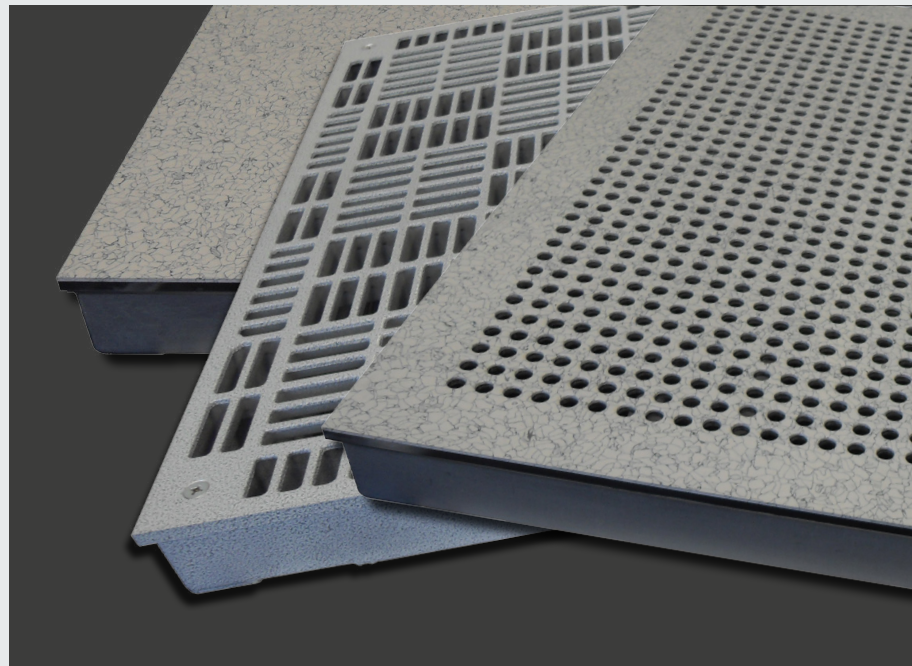
- Solid Panels
- Perforated Panels
- Grating Panels
- Special Purpose Panels

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.



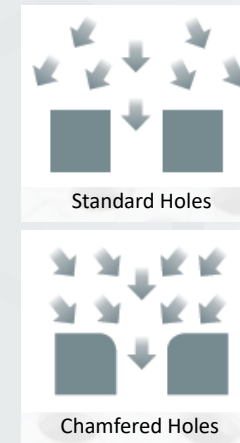
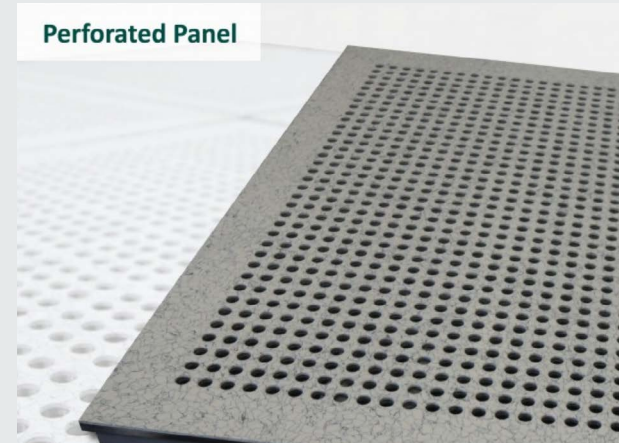
TYPE	DIMENSION (MM)	CONCENTRATED LOAD 1" INDENTOR @ 1/2 EDGE	FINISH TYPE
STANDARD	600 x 600 x 39(T)	550 kgf / 2.0 mm deflection	1. PVC Tile
	600 x 600 x 39(T)	650 kgf / 2.0 mm deflection	- Conductive Tile
	600 x 600 x 44(T)	850 kgf / 2.0 mm deflection	- Static Dissipative Tile
	600 x 600 x 48(T)	1,000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

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 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

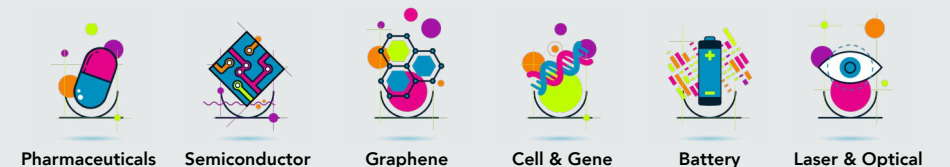
- Promotes unidirectional airflow and aids uniformity
- Provides an accessible service void for utilities
- Hard-wearing construction, high load-bearing capacity
- Wide variety of finishing materials
- Long life cycle

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	18~22% (1,296)
	600 x 600 x 44(T)	850 kgf / 2.0 mm deflection	- Static Dissipative Tile	18~22% (1,024)
	600 x 600 x 48(T)	1,000 kgf / 2.0 mm deflection	2. E-Coating	18~22% (1,296)
HEAVY DUTY	600 x 600 x 39(T)	750 kgf / 2.0 mm deflection	- Black, Silver colours	18~22% (1,296)
	600 x 600 x 48(T)	1,300 kgf / 2.0 mm deflection	3. Epoxy powder	18~22% (1,296)
	600 x 600 x 48(T)	1,500 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	4. Ni-Cr plating	18~22% (1,024)
	24" x 24" x 1.89"(T)	3,000 lbs / 2.0 mm deflection		18~22% (1,024)

APPLICATIONS



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		51%
	600 x 600 x 48(T)	1,000 kgf / 2.0 mm deflection	3. Ni-Cr plating	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

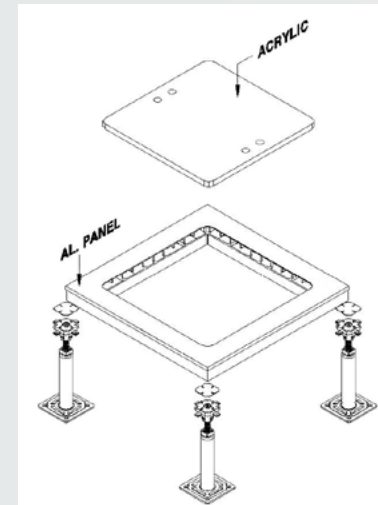


Steel Pedestals

SPECIAL PURPOSE PANELS

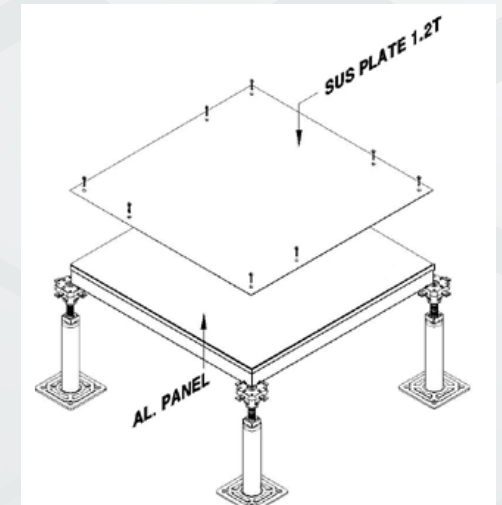
Acrylic Insert Panels

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.

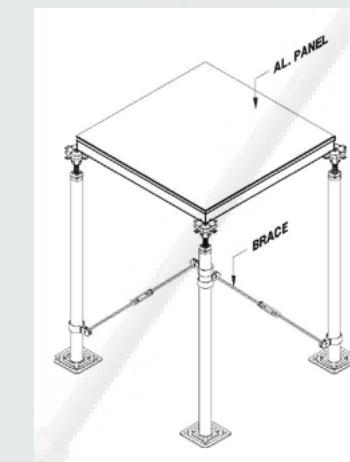


STRINGERS



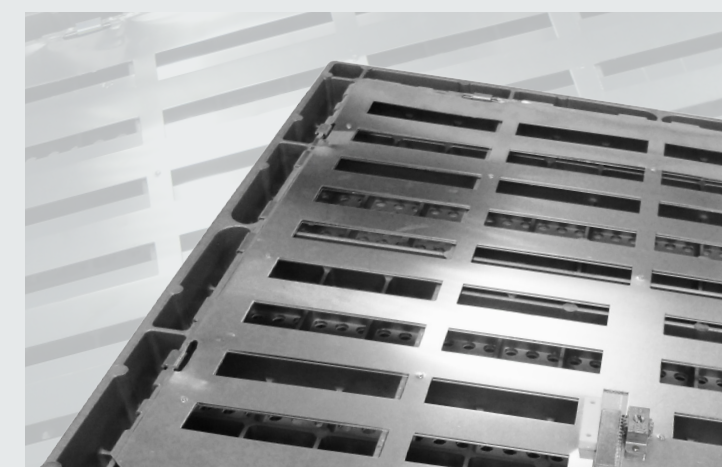
Stringers are extruded aluminum profiles designed to fit between and span the pedestal heads to provide lateral support to the system. The stringers do not in any way determine the spacing requirements between the pedestals as the holes are elongated (Slotted) to allow them to conform to the size of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

BRACING

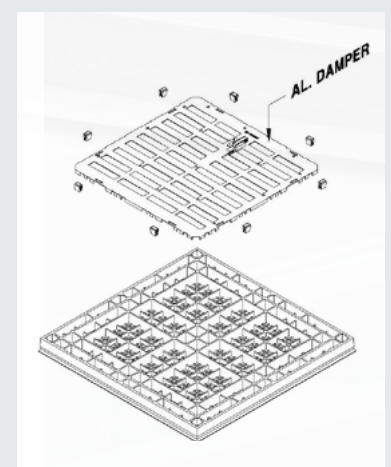


Bracing, which is made of either aluminum or steel materials, is clamped at pedestal, to pedestal, or pedestal to concrete foundation, to prevent lateral movement or any potential dislocation of structure system caused by possible a little tiny bit of vibration at the upper/lower side of the structure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



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

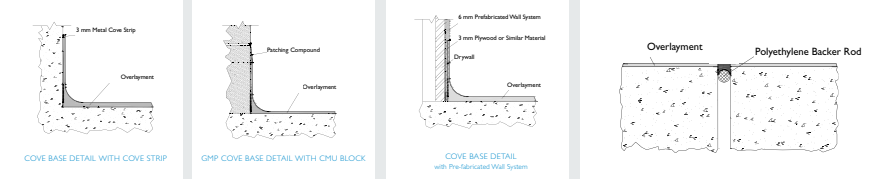
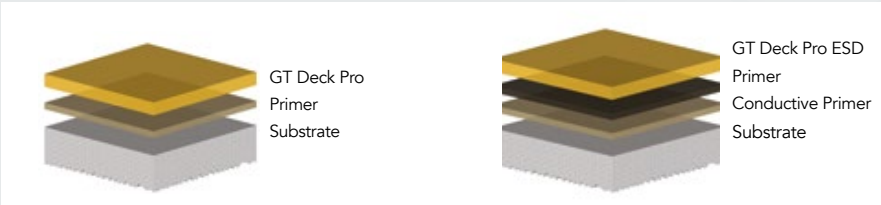
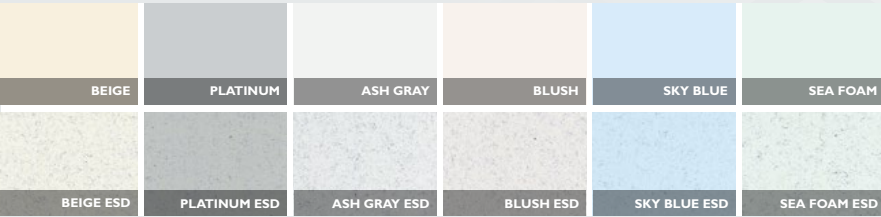
With the appropriate primer, GT Deck Pro is suitable for application over concrete, wood, brick, quarry tile and metal.

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

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
Abrasion Resistant	GOOD	GOOD
Chemical Resistant	GOOD	GOOD
High Traffic	GOOD	GOOD
Low Odour	GOOD	GOOD
Water Resistant	GOOD	GOOD
Wear Resistant	GOOD	GOOD
High Gloss	SUPERIOR	SUPERIOR


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

APPLICATIONS






Medical Device


Healthcare


Oil & Gas


Cell & Gene


Battery


Laser & Optical

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.

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



GT DECK PLUS



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.

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
PRODUCT FORMAT				
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/m2	3030g/m2	3400g/m2
PERFORMANCE REQUIREMENTS* *(All SD products require minimum 40% RH)				
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 106 - 1 x 109 ohms	1 x 106 - 1 x 109 ohms	1 x 106 - 1 x 109 ohms
SUSTAINABILITY				
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.




Silver Grey **5110**
NCS S 2500-N

w/r 2090
LRV 49

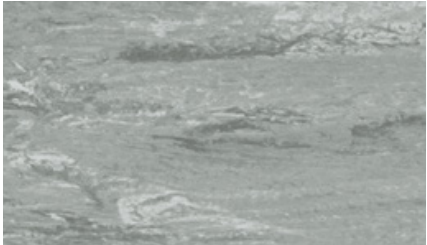


Flaxen **5060**
NCS S 1010-Y30R




Golden Sand **5070**
NCS S 3020-Y10R

w/r 2500
LRV 43




Steel Grey **5030**
NCS S 4502-G

w/r 9120
LRV 32



Teal **5080**
NCS S 4010-B70G



Ocean Blue **5050**
NCS S 3005-R80B

w/r 5350
LRV 41

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 sanctuary 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.

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

APPLICATIONS





Cosmetics



Automotive



Horticulture



Digital Printing



Aerospace



Manufacturing

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 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.



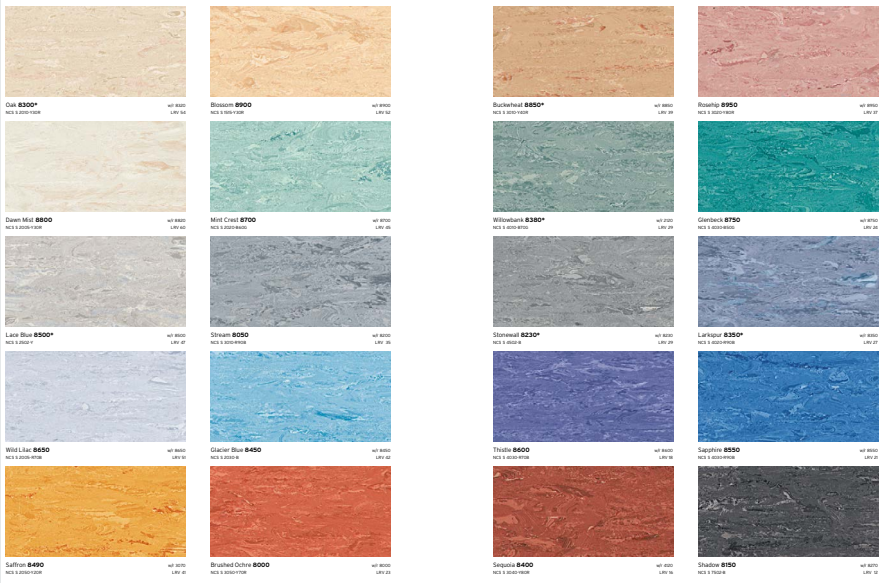
TECHNICAL FEATURES

Gauge	EN 428/ISO 24346	2.0mm / 2.5mm
Roll Size	EN 426/ISO 24341	2.0mm: 2m x 20m = 40m2 2.5mm: 2m x 15m = 30m2
Tile Size	EN 427/ISO 24342	2.0mm: 300mm x 300mm = 4.5m2 / 2.0mm: 608mm x 608mm = 5.17m2 2.5mm: 300mm x 300mm = 3.6m2
Total Weight	EN 430/ISO 23997	2.0mm: 3550g/m2 2.5mm: 4552g/m2
General Performance	EN 649/EN ISO 10581	Conforms
Reaction to Fire	EN 13501-1	Class Bfl-S1
Abrasion Resistance	EN 660-2	Group M
Binder Content	EN ISO 10581	Type II
Slip Resistance	EN 13893	Class DS
Residual Indentation	EN 433/ISO 24343-1	≤0.10MM
Impact Sound Reduction	EN ISO 10140-3	2dB
Static Electrical Propensity	EN 1815	≤ 2.0kV Classified as 'antistatic'
Resistance to Chemicals	EN 423/ISO 26987	Good resistance
Light Fastness	ISO 105-B02	≥6
Castor Chair (continuous use)	EN 425/ISO 4918	Suitable
Bacterial Resistance	ISO 846 Part C	Does not favour growth
Ease of Radioactive Decontamination	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

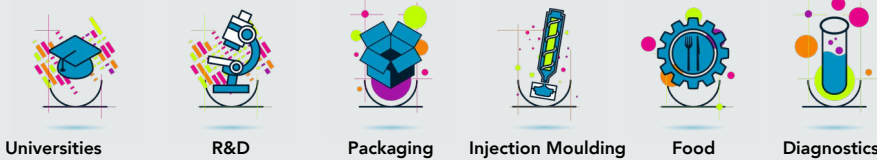
periodic basis.

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				
Raised access (for service void)				
Coving option				
Waterproof				
Anti-ESD (Electro Static Discharge) option				
Variety of colour swatch options				
Slip resistant				
UV cured				
Abrasion resistant				
Long-lasting solution				
Homogeneous system				
Promotes unidirectional airflow				
				



Guardtech

group

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