

Insulated Panels
UK & Ireland

Protected by



Cleanroom Systems UltraTech Versatile

High Specification, Customisable, Cleanroom Systems



POWERED BY
QuadCore[®]
TECHNOLOGY



Overview



Kingspan Group



More than

50

years experience

Operations in over

70

countries across
the globe

More than

15,000

employees worldwide

Net-Zero by

2020

across all Kingspan
businesses



High-end, cleanroom solutions tailored to your individual project requirements, delivered seamlessly by the technology experts.

With over 50 years' experience and exciting innovations behind us, we now bring that knowledge to the sector to offer you the ultimate cleanroom solutions.

Our team provides 360° support from specification, technical advice, manufacture, installation and project handover.

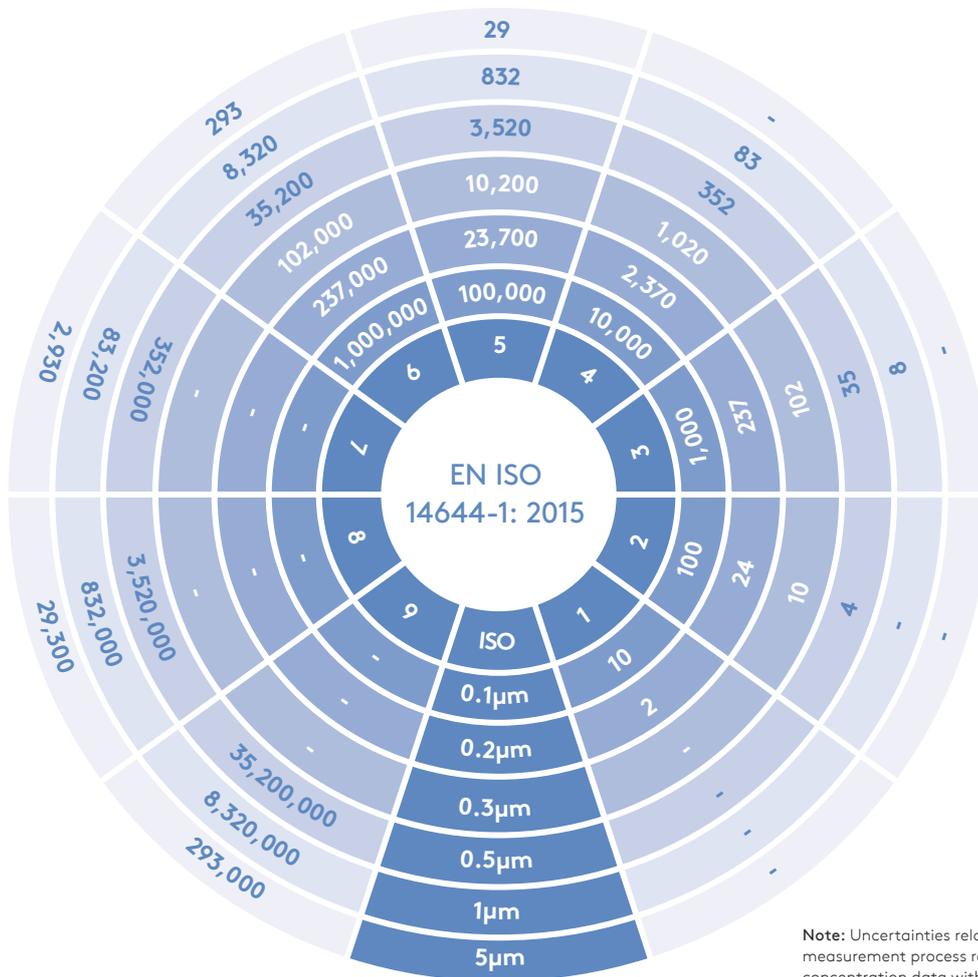
Our UltraTech Versatile system features our high-performing QuadCore® insulation core technology, delivering superior fire, environmental and thermal performance.

Cleanroom Systems Classifications

The classification of air cleanliness is governed by the European Standard EN ISO 14644-1: 2015 – cleanrooms and associated controlled environments Part 1.

The type and classification of the cleanroom you need depends on various factors:

- Your particular industry and the specific operation that will be carried out under controlled conditions.
- The level of cleanliness required, and the condition in which that level of cleanliness has to be controlled and maintained.
- The air permeability characteristics of UltraTech Cleanroom Systems in association with other aspects of the cleanroom design and installation.



Note: Uncertainties related to the measurement process require that concentration data with no more than three significant figures be used on determining the classification level.

Maximum concentration limits (particles/m³ of air) for particles equal to and larger than the considered sizes shown above

Cleanroom Sectors Applications

There are a variety of reasons why a company needs to have a Clean Controlled Environment.

For example, you may be manufacturing a material that is easily contaminated by airborne particles, but cleanliness is only one of the aspects controlled within a cleanroom. Cleanrooms can also control temperature, humidity, sound, lighting, and vibration when necessary. The operations being conducted will determine which variables must be controlled.

Industries which commonly need cleanrooms include:



Life Science



Food Technology



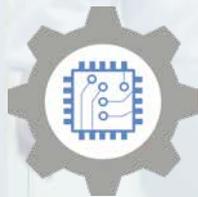
Pharmaceutical



Automotive



Bio Technology



Electronics &
Semiconductor



Healthcare



Cosmetics



Medical Devices



Aerospace



AgriTech

It's all in the grey cells...

A Breakthrough in Insulated Panel Core Technology for Enhanced Performance

QuadCore® is Kingspan's new hybrid insulation core technology with a unique formulation benefiting from microcells with unrivalled thermal performance, superior fire protection and enhanced environmental credentials.

POWERED BY

QuadCore®
TECHNOLOGY

The Highest Level of Certification and Approvals

Kingspan's KS1100 UT-S and KS1100 UT-F cleanroom products with QuadCore® Technology are high-performance closed-cell insulated panel systems which achieve FM Approval to FM 4880 and FM 4881. They are also FM Approved to FM 4882 for pharmaceutical manufacturing and storage areas or similar occupancies.



Unrivalled Lifetime Thermal Performance

QuadCore® delivers leading thermal performance. It is almost twice as thermally efficient as mineral fibre, offering significant advantages in terms of thinner walls.

Superior Fire Protection

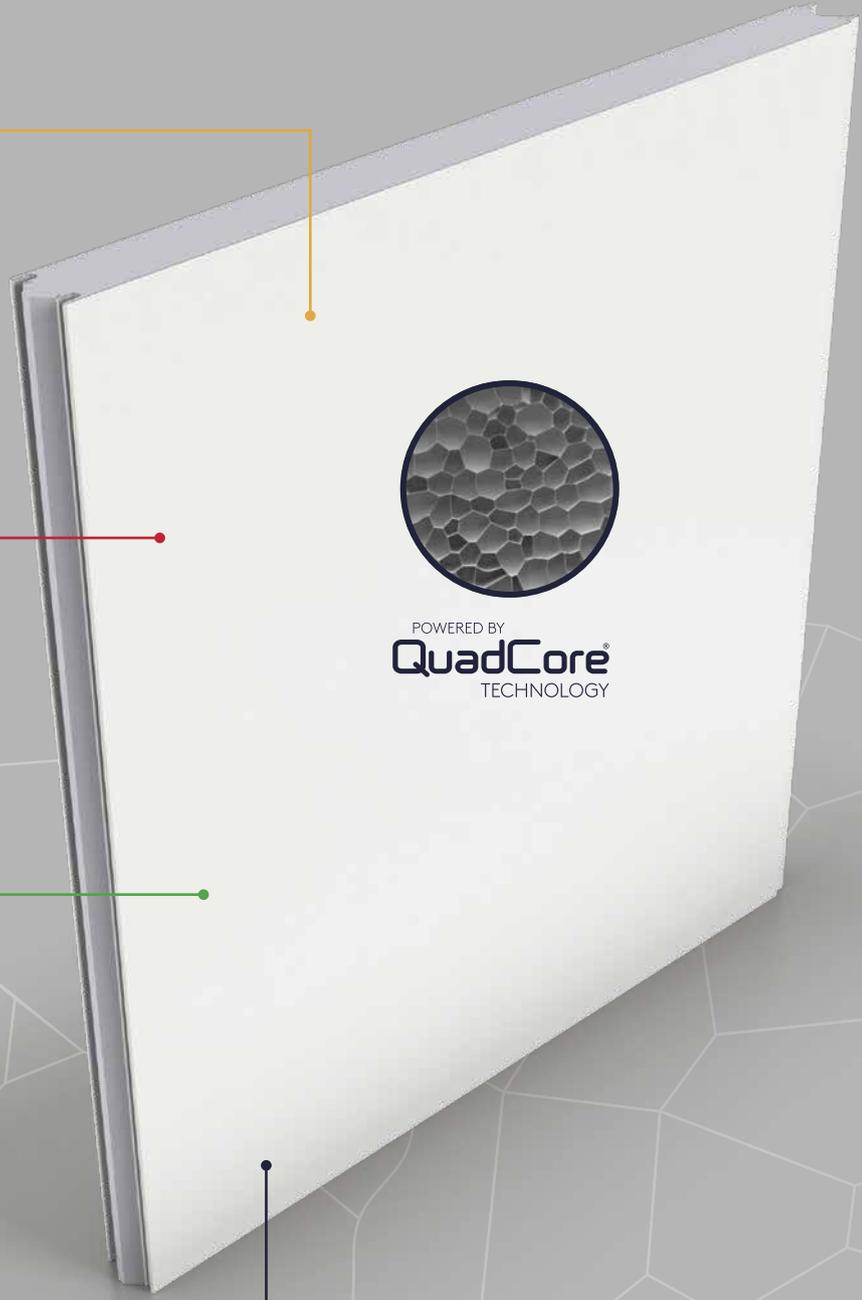
UltraTech KS1100 UT-S and KS1100 UT-F panels with QuadCore® are insurer approved to FM standards and protect against fire spread.

Enhanced Environmental Performance

QuadCore® is a Low Global Warming Potential solution which is also CFC and HCFC free. Its superior material efficiency and ease of disassembly can contribute towards credits in BREEAM® 2018 and other green building rating systems.

Up to 40 Year Warranty for Thermal & Structural Performance

QuadCore® closed cell insulation is guaranteed to perform to its specified thermal performance for 40 years. Unlike some insulation, it maintains thermal continuity and is not subject to degradation of thermal performance due to moisture ingress.



QuadCore® is non-sensitising (does not cause skin irritation when handled) and non-hazardous.



QuadCore® is manufactured in factories with 100% renewable energy including onsite-generated solar and wind energy.

For further details please contact our technical team - technical@kingspanpanels.com

Your 'End-to-End' Solutions Partner

Kingspan has over 50 years of experience in the construction industry worldwide.

Our expertise in cleanrooms allows us to meet the precise needs of your particular sector, whether that is pharmaceutical, medical, semi-conductor, biotechnology, cosmetics or high-tech.

By increasing our know-how through constant contact with our clients, we can offer you support in envelope design, providing high quality solutions based on modular panels and walkable ceilings.

We develop innovative solutions in order to provide our customers with the most advanced insulation technologies.

Now we bring that innovation to the cleanroom sector, creating something truly unique – a range of high performance, rapid build cleanroom solutions featuring a hybrid insulation core that is radically different from anything that has gone before it: **QuadCore®**.

POWERED BY
QuadCore®
TECHNOLOGY

At Kingspan, we pride ourselves on our 360° service and support across a wide range of cleanroom applications, to provide you with the best possible customer experience.

We will be with you every step of the way, from concept to completion, and our dedicated and experienced team will support your project to give you total peace of mind.



KNOWLEDGE & EXPERTISE



INNOVATION



SERVICE & SUPPORT



**QUALITY &
COMPLIANCE**

**We focus on continually
delivering the best quality
products.**

With this in mind, all our UltraTech systems are manufactured in production facilities which are certified to EN ISO 9001, EN ISO 14001: 2004 and OHSAS 18001*.

UltraTech Versatile cleanroom panels comply with the appropriate standards, such as EN ISO 14644.



**VERSATILITY
& FLEXIBILITY**

**Our UltraTech cleanroom
solutions are designed
for both flexibility and
economy.**

We offer customisable solutions for your specific cleanroom environment requirements and aspirations.

Designs and materials depend on the application specified and special processes which need to be incorporated.



**BUILD SPEED
& SIMPLICITY**

**With our UltraTech
cleanroom solutions,
installation is faster and
simpler.**

Our semi-flush offers simple integration to provide fast and efficient installation.

*Based on product being manufactured in our Sherburn plant, certificates for other production facilities available upon request.

The image shows a cleanroom environment. A yellow crane beam with 'ABUS 5t' written on it is visible at the top. The room has white walls and a highly reflective floor. A blue semi-transparent overlay covers the middle and bottom portions of the image, containing white text. The text reads: 'One of the most important considerations in an effective cleanroom environment is the quality and design of the cleanroom structure itself. Turn to Kingspan to give you the solution you need.'

One of the most important considerations in an effective cleanroom environment is the quality and design of the cleanroom structure itself. Turn to Kingspan to give you the solution you need.

System Selection

The UltraTech range offers flexible, high performance, engineered cleanroom solutions that deliver both cost and operational benefits, minimising risk and maximising return on investment.



UltraTech Versatile

UltraTech Versatile is our semi-flush cleanroom system, typically fitted into a base channel with integrated semi-flush doors and windows. Advantages with this type of system are shorter lead time for manufacture and speed of build on site.

- Thickness: 40-220mm.
- Panel length: up to 19.5m subject to additional charges and transport restrictions.
- Panel core: QuadCore[®] (KS1100 UT-S is approved to FM 4882) or Mineral Fibre (UltraTech MF approved to FM 4880).
- Panel coatings: Kingspan CLEANsafe 25, 55, 120, Anti-Static 25 & Stainless 304 & 316L.



UltraTech Versatile Flush

Revolutionary hybrid cleanroom system that offers the client high performance solutions at a more competitive cost base than traditional methods. A factory engineered based detail to allow it to sit on a recessed floor track to give a fully flush floor to wall detail suitable for both vinyl and resin. Insertion of an interface profile in the panel joint to allow integration of fully flush windows, doors and service panels.

- Thickness: 60mm or 80mm.
- Panel length: up to 6.3m.
- Panel core: QuadCore[®] (KS1100 UT-F is approved to FM 4882).
- Panel coatings: Kingspan CLEANsafe 25, 55, 120, anti-static 25 & Stainless 304 & 316L.

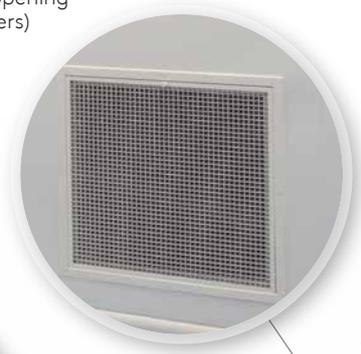
Note: The above technical information relates to QuadCore[®] only, please relate to our data sheet for mineral fibre technical information. FM Approved to FM 4882 for pharmaceutical manufacturing and storage areas or similar occupancies.

UltraTech Versatile

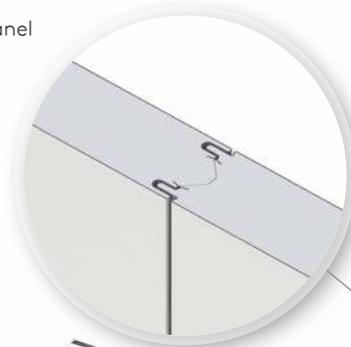
Why choose UltraTech Versatile?

- Unique hybrid system.
- Bespoke design flexibility combined with all the advantages of an insulated panel and its beneficial economies of scale.
- Consistent high quality, factory engineered system.
- Simple and fast construction.
- Kingspan's KS1100 UT-S and KS1100 UT-F cleanroom products with QuadCore® Technology are high-performance closed-cell insulated panel systems which achieve FM Approval to FM 4880 & FM 4881. They are also FM Approved to FM 4882 for pharmaceutical manufacturing and storage areas or similar occupancies.
- Interlocking tongue and groove joint system.
- Integrated solution - doors, windows, corners, floor tracks, air return panels and other components.
- Semi-flush option provides minimal ledges to achieve a superior aesthetic appearance.
- Longer panel lengths - cleanroom heights over 6 metres.
- Ultra airtight system.
- Wide range of CLEANsafe coating systems.

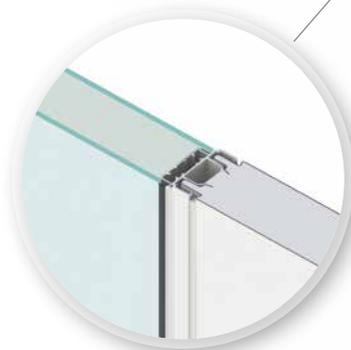
Factory cut opening
(grille by others)



Versatile panel
joint detail



Flush integrated
window detail

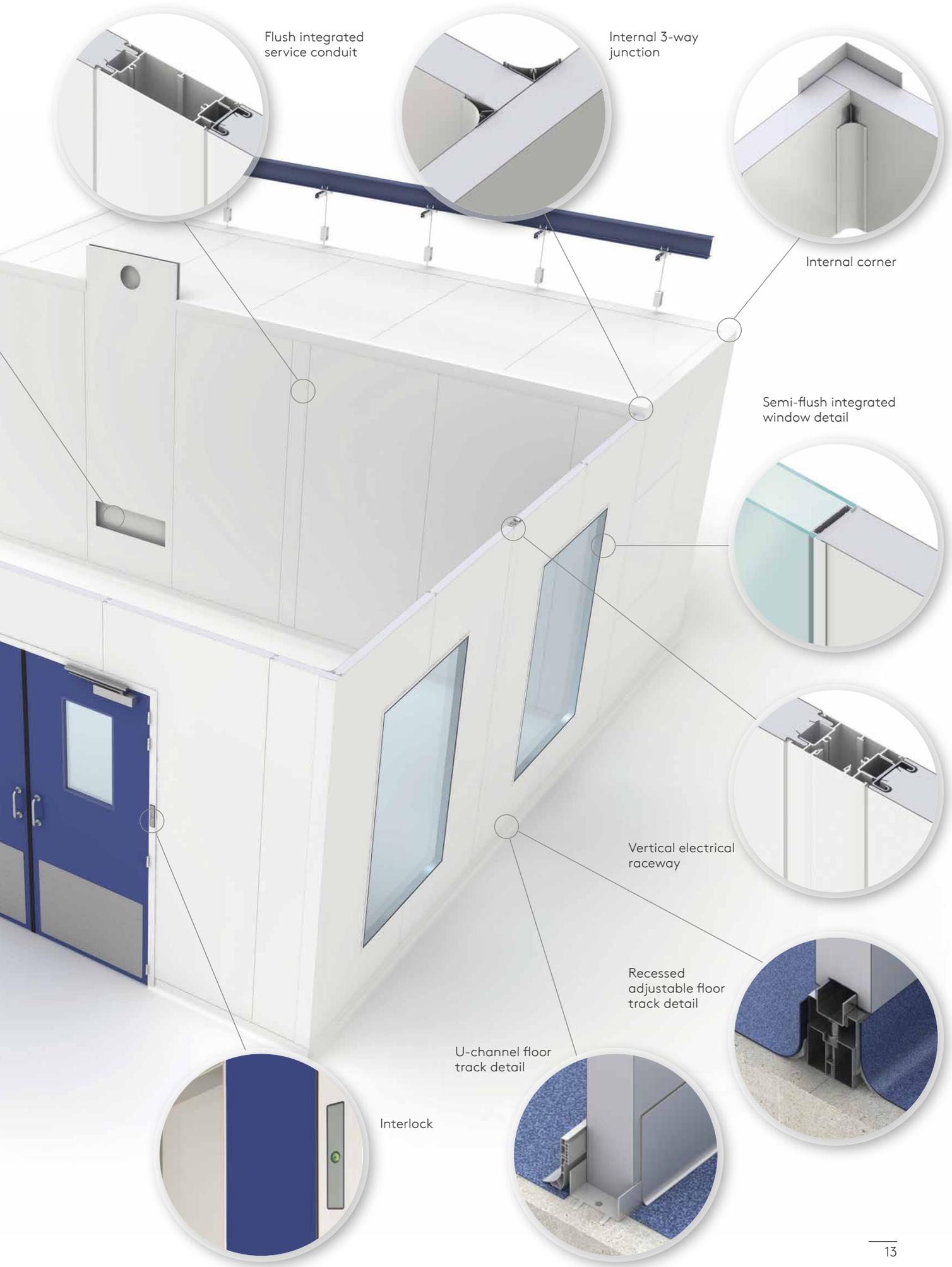


Versatile to
Precision detail



Semi-flush integrated
door detail (viewed
from inside)





Flush integrated service conduit

Internal 3-way junction

Internal corner

Semi-flush integrated window detail

Vertical electrical raceway

Recessed adjustable floor track detail

U-channel floor track detail

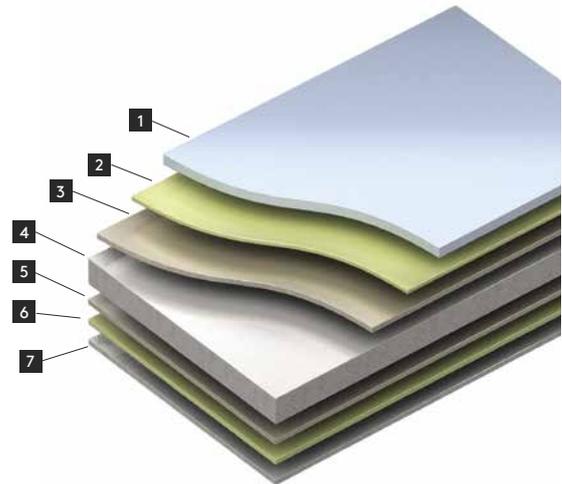
Interlock

High Performance Coatings Internal Applications

Kingspan CLEANsafe 15

Kingspan CLEANsafe 15 is a chemically inert polyester (PE) coating, applied to pre-treated metal, suitable for non-aggressive internal environments.

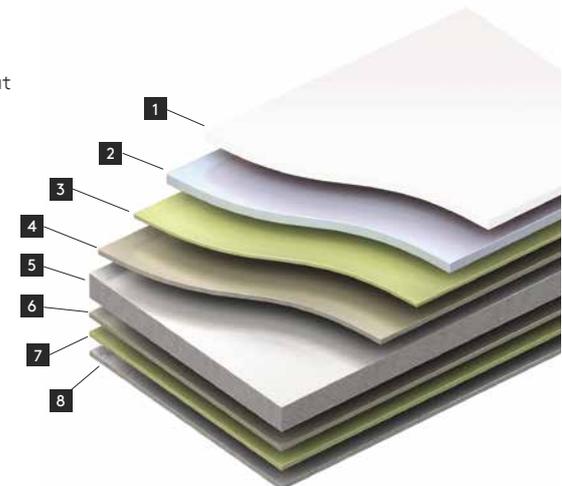
- 1 Top coat
- 2 Pre-treatment
- 3 Metallic protection
- 4 Metal substrate
- 5 Metallic protection
- 6 Pre-treatment
- 7 Back coat



Kingspan CLEANsafe 25

Kingspan CLEANsafe 25 is a chemically inert polyester (PE) coating, applied to pretreated metal, suitable for moderately aggressive internal environments.

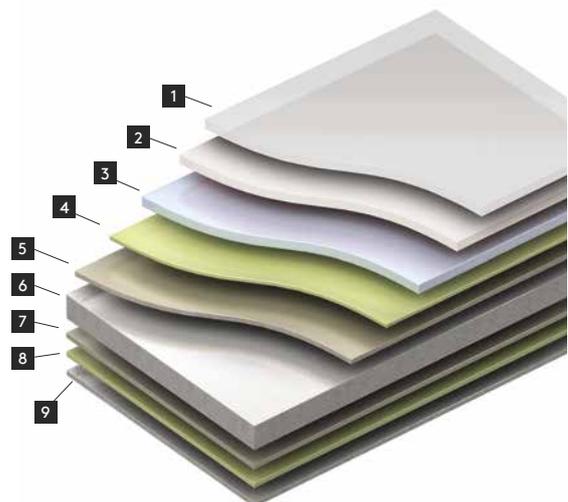
- 1 25µm polyester top coat
- 2 Primer
- 3 Pre-treatment
- 4 Metallic protection
- 5 Metal substrate
- 6 Metallic protection
- 7 Pre-treatment
- 8 Back coat



Kingspan CLEANsafe 55

Kingspan CLEANsafe 55 is a chemically inert colaminated polyethylene terephthalate (PET) film and polyester (PE) paint, applied to pre-treated metal, suitable for humid and chemically aggressive internal environments.

- 1 55µm PET film
- 2 Polyester
- 3 Primer
- 4 Pre-treatment
- 5 Metallic protection
- 6 Metal substrate
- 7 Metallic protection
- 8 Pre-treatment
- 9 Back coat



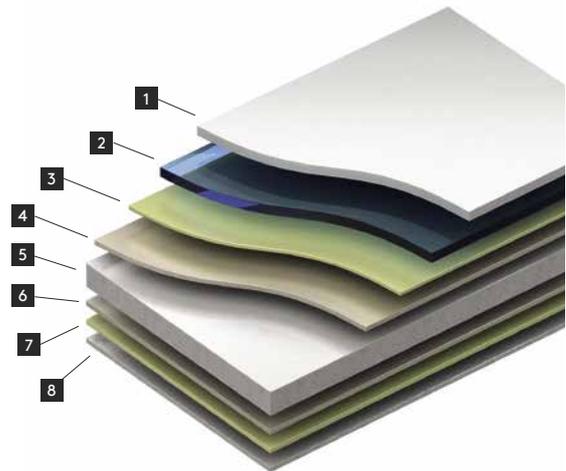
High Performance Coatings Internal Applications

Kingspan CLEANsafe 120

Kingspan CLEANsafe 120 is a chemically inert polyvinyl chloride (PVC) film, laminated to pre-treated metal, suitable for internal for controlled environments.

Joints between panels can be either caulked or chemically cold-welded.

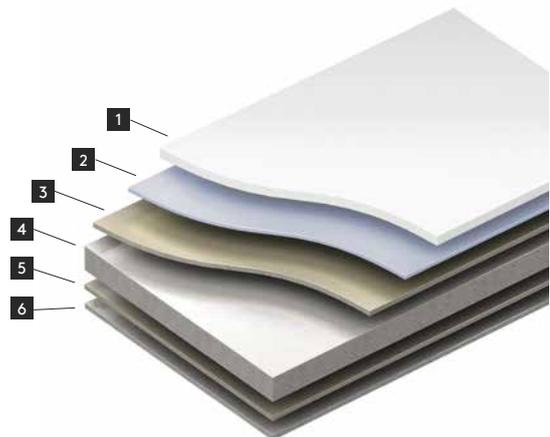
- 1 120µm PVC film
- 2 Adhesive
- 3 Pre-treatment
- 4 Metallic protection
- 5 Metal substrate
- 6 Metallic protection
- 7 Pre-treatment
- 8 Back coat



Kingspan CLEANsafe Anti-Static 25

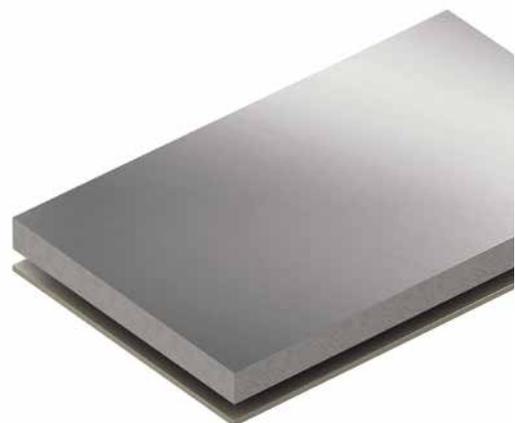
Kingspan CLEANsafe Anti-Static 25 is a chemically inert polyester (PE) coating with a surface resistivity of 1 to 300 x 10⁶Ω/square, applied to pre-treated metal, suitable for moderately aggressive internal environments.

- 1 25µm polyester top coat
- 2 Primer
- 3 Metallic protection
- 4 Metal substrate
- 5 Metallic protection
- 6 Back coat



Kingspan CLEANsafe Stainless Steel 304 & 316L

Kingspan CLEANsafe Stainless Steel 304 and 316L is a chemically inert, gap-free austenitic stainless steel, specifically designed for conditioned environments and environments with a high corrosion factor.



360° Service & Support

With you all the way.

Our dedicated and experienced team can deliver a full service for a wide range of cleanroom applications.

With you from the outset, we will offer support on all necessary aspects of your cleanroom project, from conception, through installation, to completion and handover.

Technical Support

Our Cleanroom Technical Team provides dedicated support throughout the design and construction process for our customers. With our specialist team we are here to offer support on ISO and GMP cleanroom standard compliance. We provide installation guidance and offer product layouts using our in house BIM software capabilities upon order, subject to customers product selection and project demands.

Customer Service

Our dedicated customer service advisers will be with you every step of the way.

Production

Our streamlined process, using state-of-the-art automated manufacturing equipment, combined with our highly skilled and experienced workforce, ensures consistently high quality and efficient production of your chosen solution.



1



2



3



4

Specification

Our specialist Cleanroom Sales Team are here to support you with the appropriate selection and specification of our comprehensive product range, providing quotations and cost support.

Warranty

Our service continues on after the project is complete. With proven performance, backed by our Kingspan System warranty, you can rest assured you have chosen the ultimate cleanroom solution.



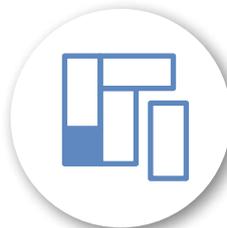
7



Project Handover

On completion, we will support you as required with all the relevant documentation including data to support your operation and maintenance manuals that will ensure you get the best from your cleanroom solution.

6



Construction

Our modular solution offers simple integration to provide fast and efficient installation.

5



Delivery

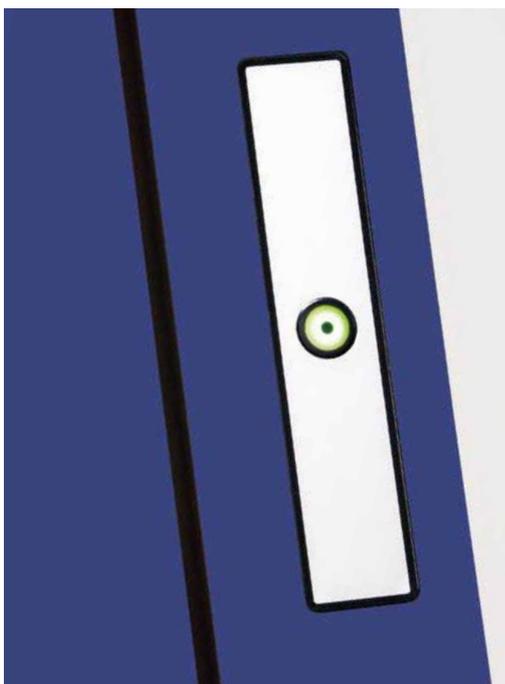
We work with you to quickly provide a professional delivery schedule to suit your project needs.

Cleanroom Systems Features



Our high quality, innovative UltraTech cleanroom solutions are ideal for a wide range of sectors.

Contact our dedicated team to find out how we could help you.



UltraTech Versatile is a unique cleanroom system that provides complete design flexibility and high performance combined with unparalleled cost-efficiency.



Case Studies

ILC Dover

ILC Dover is an American Company with headquarters in Fredricka DE USA. They are a world-leader in the innovative design and production of engineered flexible protective solutions, for pharmaceutical and biopharmaceutical, food protection, personal protection, bulk packaging and aerospace industries. As part of their global expansion they have setup a state-of-the-art manufacturing facility located at Blarney, Ireland.

In the ISO 8 suites the UltraTech Versatile Flush system coated with CLEANsafe 55 was used, the adjustable floor track allowed the floor to be coved flush to the panel face. To the production corridors and supporting offices which were where classed as CNC (clean non-classified), the UltraTech Versatile was utilised with a traditional U-channel and a site applied capping strip which allowed the floor to be coved semi-flush to the panel face.

*Grid ceiling by others.



Case Studies

Metalnet



Metalnet precision components, a leading provider of components with a high degree of precision and cleanliness for the high-tech industry and machine building. With its H14 HEPA filtration and innovative design, the cleanroom easily achieves an ISO Class 6 classification in the main area and ISO Class 7 in the goods and gowning areas.

The UltraTech Versatile QuadCore® system was used for the walls, ceilings, doors and windows, finished in CLEANsafe 25 for a non-aggressive environment, with all ancillaries powder coated in house to match the panels. By using the UltraTech Versatile semi-flush wall panels combined with special interface profiles we were able to provide a flush service conduit for integration of services.



Case Studies

Sonaca

Located in Gosselies, Belgium, Sonaca is an aerospace company specialising in the development, manufacture and assembly of structures for the military, civil and space markets. This industrial cleanroom houses a crane for lifting heavy parts of aircraft wings.

Our UltraTech Versatile panels were used in the construction of this facility due to their spanning capabilities. The industrial cleanroom is located in close proximity to an airport; meaning the fire and smoke performance of the panels were two essential criteria to which this panel system conforms.



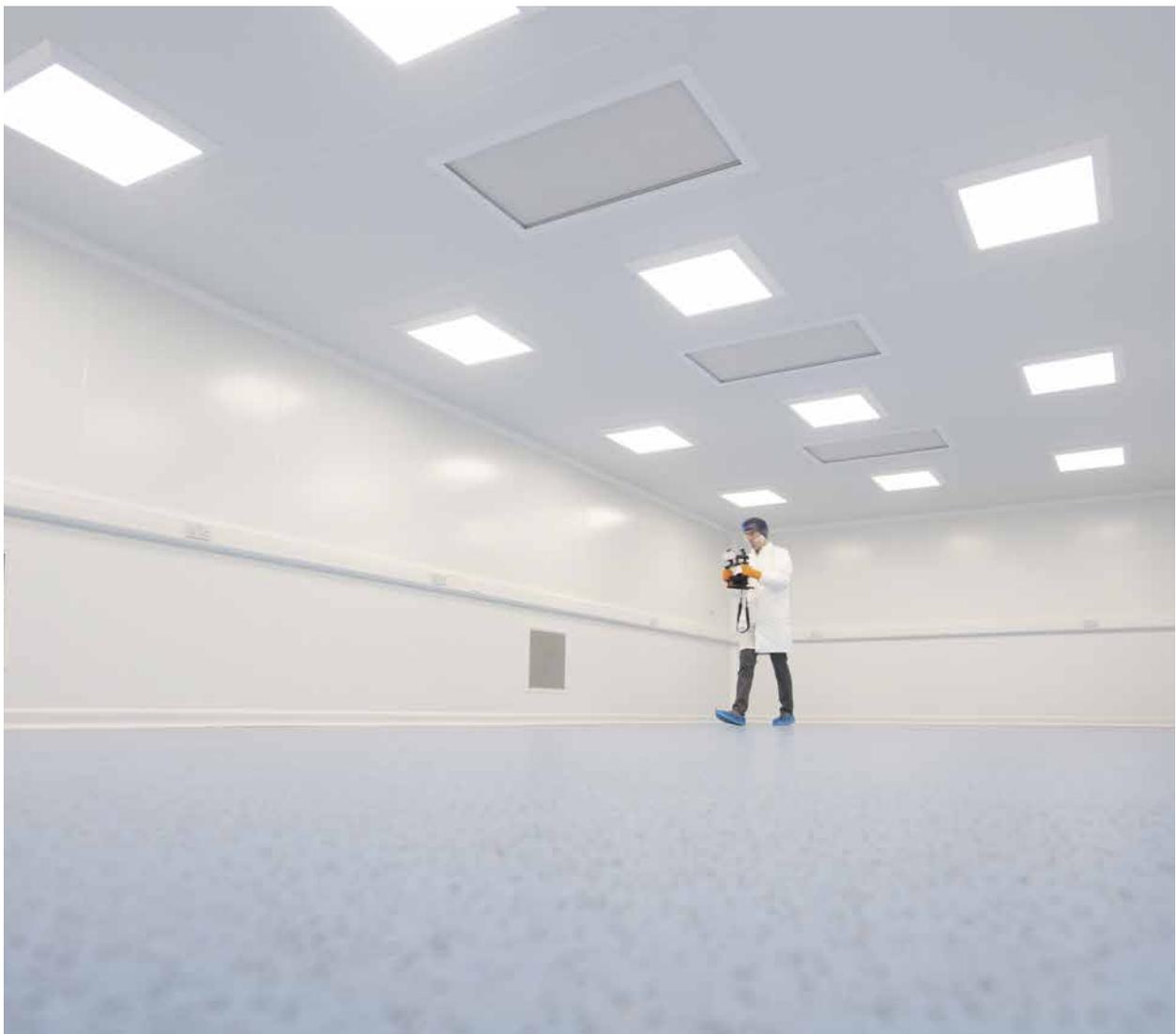
Case Studies

Cogent



Cogent Technology has moved into a new 80,000ft² facility in Felixstowe, to serve its clients with world class manufacturing. The new facility features state of the art production lines and Cogent required two bespoke cleanrooms that were able to be installed within its wider facility fit-out programme and so production was not interrupted.

The two cleanrooms were designed and built in just 8 weeks, including validation so use of the full UltraTech Versatile system was key due to the manufacturing lead time and speed of build once on site. Factory cut openings for the filters in the ceilings and return air grills in the walls helped speed up installation.



Contact Details

United Kingdom

Kingspan Limited

Greenfield Business Park No. 2
Greenfield | Holywell | Flintshire
North Wales | CH8 7GJ

T: +44 (0) 1352 716100

F: +44 (0) 1352 710161

E: kingspancleanrooms@kingspan.com

Your local contacts

Find your local contact to the cleanroom systems team on our website: www.kingspan.com

For the product offering in other markets please contact your local sales representative or visit www.kingspanpanels.com

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