

# Cleanroom Systems UltraTech Precision

High Specification, Customisable, Modular, Flush Cleanroom System













#### Overview



#### Kingspan Group



More than

50 years experience

Operations in over

countries across the globe

More than

15,000 employees worldwide

Net-Zero by

2020

across all Kingspan businesses



#### High-end, modular 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.

UltraTech Cleanroom Systems are backed up by exceptional 360° support from specification, technical advice, 3D representation, manufacture, installation and project handover.

Our UltraTech Precision system features our ground-breaking QuadCore® insulation core technology, delivering superior fire, environmental and thermal lifetime performance.

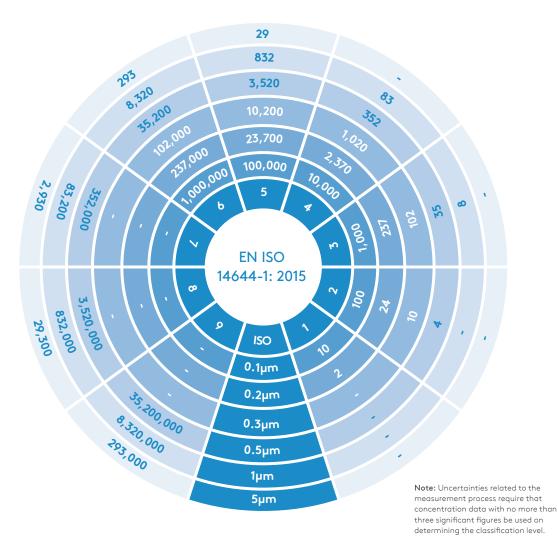
## Cleanroom Systems

#### 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.



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

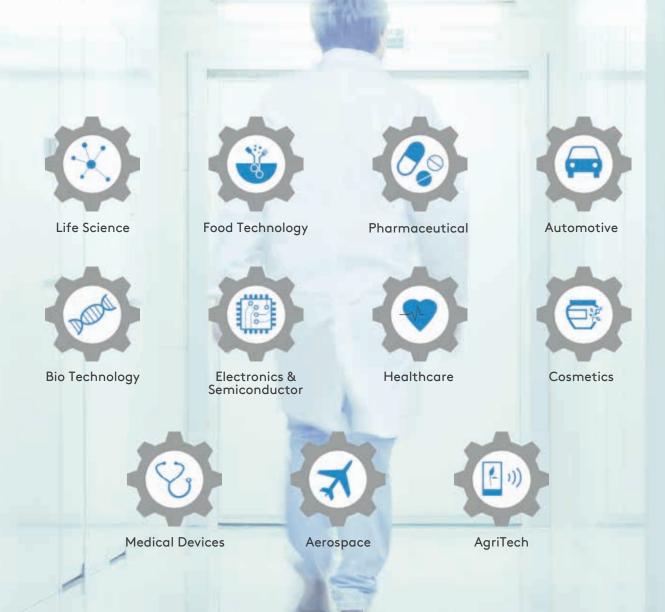
#### Cleanroom Sectors

# 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:



# 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 that creates icrocells with unrivalled thermal performance, superior fire protection and enhanced environmental credentials.

POWERED BY

QuadCore





QuadCore® is guaranteed to retain its specified thermal performance for the stated period, even if exposed to water during construction.



Quadcore provides market leading performance in reaction to fire testing.



**ECOSAFE** 

QuadCore® is a RedList Free core in an insulated panel with Low Global Warming Potential, with thirdparty verified EN 15804 EPDs on EcoPlatform and Greenbooklive.



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



QuadCore® is manufactured in factories with 100% renewable energy including onsitegenerated 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.

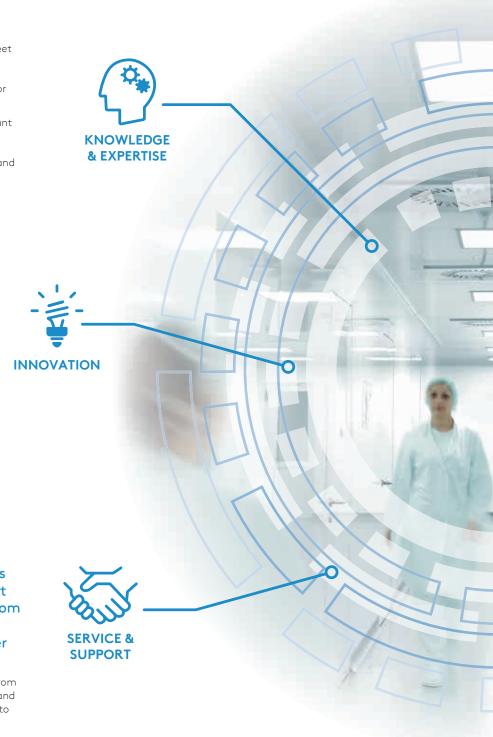
#### Across the globe, our name is synonymous for innovation in insulated panel systems and the development of advanced insulation technologies.

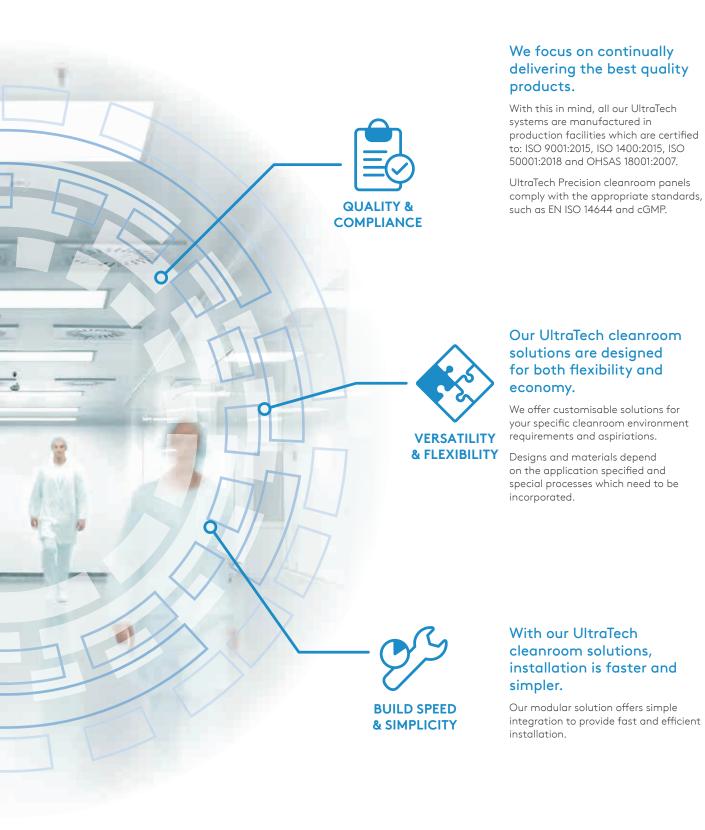
Now we bring that innovation to the cleanroom sector, creating something truly unique – a range of high performance, rapid build cleanroom solutions featuring a game-changing hybrid insulation core that is radically different from anything that has gone before it: QuadCore®.



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.





# The Flexibility to Customise

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



#### High Performance Core Materials

UltraTech Precision is a conventional flush modular system for specialist cleanroom applications.

With a choice of three core options - QuadCore®, Mineral Fibre Core and Aluminium Honeycomb - UltraTech Precision is suitable for cleanrooms with a wide range of performance requirements.



# Cleanroom Systems

### UltraTech Precision

UltraTech Precision is a customisable, modular flush cleanroom system that features a demountable joint with an aluminium extrusion to all sides.

UltraTech Precision is suitable for specialist cleanroom applications that demand specific core performance or compliance.

#### Why choose UltraTech Precision?

- cGMP compliant
- Choice of cores QuadCore®, Mineral Fibre core or Aluminium Honeycomb
- Wide range of CLEANsafe coating systems
- Ultra airtight system
- Available in both 60mm and 80mm thicknesses providing superior load bearing capacity and stability
- Flexibility variable widths to suit layout
- 60mm panel joint features an optional service cavity for incorporation of services
- Integrated envelope solution doors, windows, corners, floor tracks and other components





Factory cut opening (grille by others)





# High Performance Coatings

# Internal Applications

#### Kingspan CLEANsafe 15

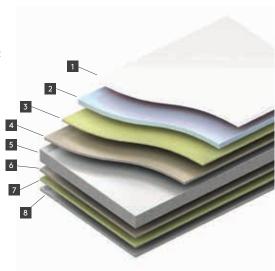
Kingspan CLEANsafe 15 is a chemically inert polyester (PE) coating, applied to pre-treated metal, suitable for nonaggressive internal environments.

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

#### Kingspan CLEANsafe 25

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

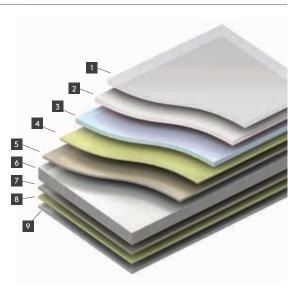
- 1 25µm polyester top coat
- 2 Primer
- 3 Pre-treatment
- 4 Metallic protection
- 5 Metal substrate
- 6 Metallic protection
- 7 Pre-treatment
- 8 Back coat



#### 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

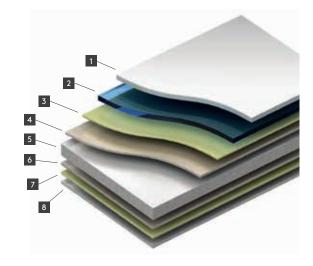
# Internal Applications

#### 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.

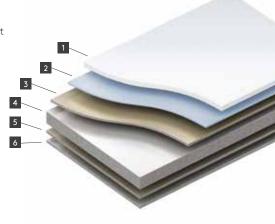
- 1 120µm PVC film
- 2 Adhesive
- 3 Pre-treatment
- 4 Metallic protection
- 5 Metal substrate
- 6 Metallic protection
- 7 Pre-treatment
- 8 Back coat



#### 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  $10^6\Omega$ /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 316L

Kingspan CLEANsafe Stainless steel 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.





# 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.



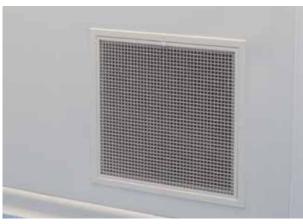
UltraTech Precision is a unique cleanroom system that provides complete design flexibility and high performance combined with unparalleled cost-efficiency.











# Case studies





- ISO class 7
- Dimensions: ca. 250 m2 (24m x 10.5m) x 3m int. height





- ISO class 7
- Dimensions: ca. 110 m2 (10m x 11m) x 3m int. height

# Case studies





- ISO class 6 / 7
- Dimensions: ca. 130 m2 (10m x 13m) x 3m int. height





- ISO class 8
- Dimensions: ca. 540 m2 (18m x 30m) x 4.65m int. height

# Case studies





- ISO class 7
- Dimensions: ca.  $85 \text{ m2} (13\text{m} \times 6.5\text{m}) \times 2.9\text{m}$  int. height





- ISO class 7
- Dimensions: ca. 110 m2 (10m x 11m) x 3m int. height

# Contact Details



#### ProCleanroom

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