Cleanroom Systems

UltraTech

High Specification Cleanroom Systems
Technical Data Sheets

Kingspan®

Insulated Panels

UltraTech

The UltraTech systems from Kingspan offer the ultimate in cleanroom solutions, satisfying the most demanding project requirements. Their highly modular design allows truly bespoke cleanroom construction, ensuring the highest levels of hygiene and contamination safety.

UltraTech systems are composed of high performance insulated panels featuring a flat non-porous surface to both sides which aids cleaning and offers high levels of resistance to mould, moisture ingress and bacterial growth, ensuring a controlled, sterile environment that minimises airborne particles and micro-organisms.

The UltraTech systems are the ideal solution for a range of cleanroom applications including: pharmaceutical and bio-technology laboratories; healthcare; medical research and advanced technology facilities.

A range of co-ordinating single and double doors, windows, light fixtures and accessories is available for a fully integrated, bespoke cleanroom solution.

Features and Benefits

- Compliant with cGMP and ISO 14644 Cleanrooms & Associated Controlled Environments standards;
- Fully complies with the appropriate National Building Regulations;
- LPCB certified to LPS 1208: FR30 & FR60 - Walls and Ceilings (depending on the panel choice);
- FM approved to FM 4880 Class 1 Fire Classification (no height restriction) and FM 4882 Class 1 Interior Wall and Ceiling Materials or Systems for Smoke Sensitive Occupancies (depending on the panel choice)
- Compliant with ISO 9001 (Quality), ISO 14001 (Environmental) and OHSAS 18001 (Health & Safety);
- Coating, thermal and structural performance of Insulated Panels comprising the system is covered under the Kingspan Ultimate Panel Guarantee;
- May be Green Guide A+ rating as per the BRE Global Green Guide to Specification. Subject to project specific assessment;
- Suitable for a range of clean room applications including pharmaceutical, bio-technology, healthcare, medical research and advanced technology;
- Cleanroom wall panels are typically laid vertically but can also be installed horizontally;
- Features unique integrated, joint systems, which achieve excellent performance, provide space for services and can be silicone sealed for regulatory compliance;
- Compatible with a range of co-ordinating accessories for a fully integrated solution;
- Service conduits 25mm diameter can be incorporated in the panel depth at 260mm from the panel ends;
- Fully recyclable at end of life.
- Unique fully flush hybrid system, patent pending.

Contents

UltraTech Versatile

Wall & Ceiling Panel
IPN-QuadCore

Applications

UltraTech Versatile IPN-QuadCore panels are designed for all internal cleanroom applications including new build and refurbishment projects.

Dimensions, Weight & Performance

Overall Thickness	80mm*
Lengths	1.2m - 19.5m
Cover Width**	1100mm
Weight (0.63 / 0.63 steel)	14.06kg/m^2
Thermal Conductivity	0.018 W/mK

*Fully flush finish only available with 80mm thick panel.
**Other specific widths available on request.

Product Tolerances

Length	+ 4.0mm	- 4.0mm
Width	+ 2.0mm	- 2.0mm
Thickness	+ 2.0mm	- 2.0mm
Flatness (per metre)	+ 1.0mm	- 1.0mm
End Squareness	+ 2.0mm	- 2.0mm

1100mm Cover Width
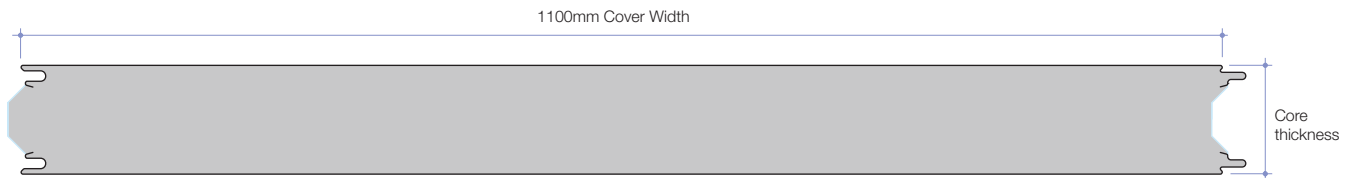
Core thickness

Core Thickness (mm)	50	60	80	100	125	150	175	200	220
Weight (0.63 / 0.63) (kg/m^2)	12.86	13.26	14.06	14.86	15.86	16.86	17.86	18.86	19.66
U-value (W/m^{2}K)	0.38	0.31	0.23	0.18	0.15	0.12	0.10	0.09	0.08

Notes: These values are in accordance with BS EN 14509, using Finite Element Analysis, and take into account any thermal bridging through the longitudinal joint. The U-values have been calculated using an aged thermal conductivity value of 0.018W/mK.

Fire Performance

The external and internal faces of the panel to be Class 0 in accordance with the Building Regulations when tested to BS 476: Part 6: 2009 and Part 7: 1997.

UltraTech Versatile panels with IPN Quadcore have passed all the requirements of:

- FM 4882 for smoke sensitive occupancies: Class 1 for interior walls and ceiling. (With no height restriction).

- LPS 1181: 2014: Part 1: Issue 1.2, series of fire growth tests for LPCB approval and is certified to LPS 1181 Grade EXT-B.*

- LPS 1181: 2005: Part 2: Issue 2.0, series of fire growth tests for LPCB approval and listing of construction product systems to LPS INT-3*, INT-2.*

- LPS 1208: 2014: Issue 2.2, LPCB fire resistance requirements for elements of construction used to provide compartmentation providing: FR30 & FR60 – Wall & Ceiling, specifications are available on request.

- FM approval to FMRC 4880, 4881 Class 1 fire classification, unlimited height.**

- Reaction to fire classification according to BS EN 13501-1: 2007 + A1: 2009: B-s1,d0.

Notes:
Certificates and specifications are available upon request. Please contact the Kingspan Technical Services Department for more information.
* LPCB certification pending.
** FM approval pending.

LPCB LOSS PREVENTION CERTIFICATION BOARD

FM APPROVED

CE

LPS 1208: Issue 2
Cert No. 260b

Acoustic Performance

UltraTech Versatile IPN-QuadCore panels have a predicted single figure weighted sound reduction R_w = 24dB.

Sound Reduction Index (SRI)

Frequency (Hz)	SRI (dB)
63	20
125	15
250	17
500	23
1000	18
2000	25
4000	40
8000	46

Kingspan
Insulated Panels

UltraTech Versatile

Wall & Ceiling Panel
IPN-QuadCore

Insulation Core

IPN-QuadCore is a revolutionary insulation material developed by Kingspan, a quantum leap in insulated panel technology that delivers industry-leading thermal performance, superior fire protection and enhanced environmental credentials.

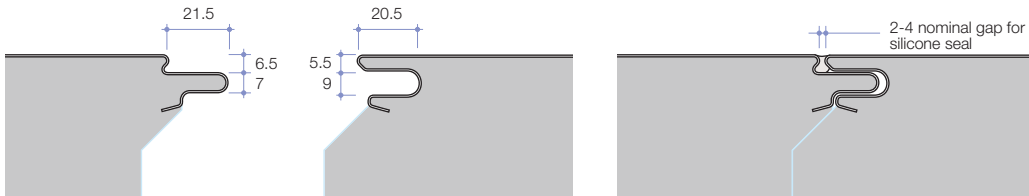**IPN QuadCore™ TECHNOLOGY**

Biological

UltraTech Versatile IPN-Quadcore panels are normally resistant to attack from mould, fungi, mildew and vermin. No urea formaldehyde is used in the manufacture of the panels. UltraTech Versatile IPN-QuadCore panels can incorporate project-specific HYGIENE*safe*, wash and clean down facings.

Panel Joint

The panel side joint is a unique engineered joint which achieves excellent air leakage, thermal and structural performance.
The panel side joint can accommodate vapour, hygiene and fire rated seals and can be silicone sealed for regulatory compliance.

Airtightness

UltraTech Versatile IPN-QuadCore panels achieve airtightness of 0.02m^3/hr/m^2 at 50Pa in accordance with EN 14509.

Watertightness

UltraTech Versatile IPN-QuadCore panels are watertight to 1050Pa (Class B) according to EN 14509.

Kingspan
Insulated Panels

UltraTech
Versatile

Wall & Ceiling Panel
IPN-QuadCore

Substrate

Standard

- Hot dipped S220GD + Za zinc / aluminium coated metal to EN 10326 (continuously hot-dip coated strip and sheet of structural steels, technical delivery conditions).

- Metallic protected steel to BS EN 10346:2009.

- Nominal thickness: Interior / exterior 0.5mm or 0.63mm.

Coating

Kingspan CLEANsafe 15

Kingspan CLEANsafe 15 is a basic polyester coating suitable for standard internal environments, providing reasonable chemical and humidity corrosion resistance.

- Polyester coating: 15μm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: No

Kingspan CLEANsafe 25

Kingspan CLEANsafe 25 is a polyester coating suitable for moderately aggressive internal environments, providing good chemical and humidity corrosion resistance.

- Polyester coating: 25μm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

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.

- PET film: 55μm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan HYGIENEsafe

Kingspan HYGIENEsafe is our unique chemically inert, anti-bacterial coating. A rigid polyvinylchloride (PVC) phthalate-free coating applied to pre-treated metal and suitable for humid and chemically aggressive internal environments.

- PVC Rigid film: 120μm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan CLEANsafe 304 (316 available on request)

CLEANsafe 304 is cold rolled annealed austenitic stainless steel, suitable for corrosive internal environments.

- Mill finish stainless steel – grade 304

- Finish 2B

- Nominal thickness: 0.63mm

- Protection film: Yes (standard)

Colour Range

RAL 9010* and RAL 9002*
*Nearest match, samples available on request.
Other colours available on request.

Sustainability

- GWP: Low GWP with Zero ODP.

- Cradle to Grave: May be Green Guide A+ rating as per the BRE Global Green Guide to Specification. Subject to project specific assessment;

- End of Life: Fully recyclable through conventional shredder plants.

- Responsible Sourcing: Kingspan manufacturing plants are ISO 14001 (Environmental) accredited.

Quality and Durability

UltraTech Versatile IPN-QuadCore panels are manufactured from the highest quality materials using state-of-the-art production equipment to rigorous quality control standards; ensuring long-term reliability and service life. All UltraTech Cleanroom Systems are fully compliant with ISO 9001 (Quality), ISO 14001 (Environmental) and ISO 18001 (Health & Safety).

Packing

Standard Packing

UltraTech Versatile IPN-QuadCore panels are stacked horizontally with facing sheets upward. The entire pack is wrapped in polythene. The number of panels in each pack depends on panel length. Typical pack height is 1200mm, maximum pack weight is 1500kg.

Sea Freight

Fully timber crated packs are available on projects requiring delivery by sea freight shipping, at additional cost. Alternatively, steel containers can be used. Special loading charges apply.

Delivery

All deliveries (unless indicated otherwise) are by road transport, to project site. Off-loading is the responsibility of the client.

Panel lengths of 13.5m-19.5m are subject to additional transport charge.

UltraTech Versatile

Wall & Ceiling Panel
ECO*safe* PIR

Applications

UltraTech Versatile ECO*safe* PIR panels are designed for all internal cleanroom applications including new build and refurbishment projects.

Dimensions, Weight & Performance

Overall Thickness	80mm*
Lengths	1.2m - 19.5m
Cover Width**	1100mm
Weight (0.63 / 0.63 steel)	14.06kg/m^2
Thermal Conductivity	0.0195 W/mK

*Fully flush finish only available with 80mm thick panel.
**Other specific widths available on request.

Product Tolerances

Length	+ 4.0mm	- 4.0mm
Width	+ 2.0mm	- 2.0mm
Thickness	+ 2.0mm	- 2.0mm
Flatness (per metre)	+ 1.0mm	- 1.0mm
End Squareness	+ 2.0mm	- 2.0mm

1100mm Cover Width
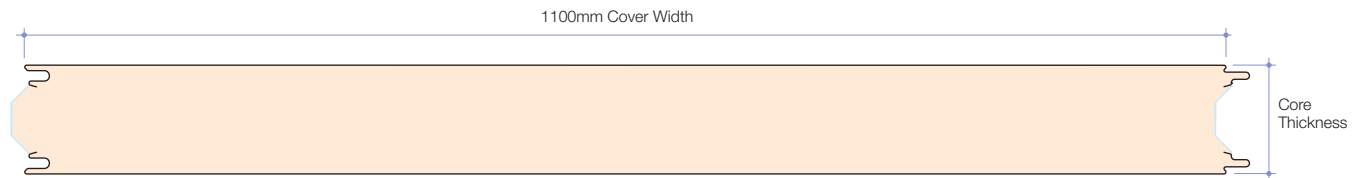
Core Thickness

Core Thickness (mm)	50	60	80	100	125	150	175	200	220
Weight (0.63 / 0.63) (kg/m^2)	12.86	13.26	14.06	14.86	15.68	16.86	17.86	18.86	19.66
U-value (W/m^{2}K)	0.40	0.33	0.25	0.20	0.16	0.13	0.11	0.10	0.09

Notes: These values are in accordance with BS EN 14509, using Finite Element Analysis, and take into account any thermal bridging through the longitudinal joint. The U-values have been calculated using an aged thermal conductivity value of 0.0195W/mK.

Fire Performance

Certification

- LPCB certified to LPS 1208: FR30 & FR60 - Wall and Ceilings.

- FM approved to FMRC 4880 Class 1 Fire Classification (No height restriction, i.e., Unlimited height).

Certification

- Fire Resistance: EI30 & EI60. Vertical and horizontal options available.

- Reaction to Fire: B-S1d0 according to EN13501.

- Surface Spread of Flame: The steel outer and inner facings have Class 1 surface spread of flame to BS 476-7: 1997 (Fire tests on building materials and structures. Method of test to determine the classification of the surface spread of flame of products) and are Class 0, as defined by Building Regulations.

Acoustic Performance

UltraTech Versatile ECO*safe* PIR panels have a predicted single figure weighted sound reduction $R_w = 24$dB.

Sound Reduction Index (SRI)

Frequency (Hz)	SRI (dB)
63	20
125	15
250	17
500	23
1000	18
2000	25
4000	40
8000	46

LPCB
LPS 1208: Issue 2
Cert No. 260b

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Insulated Panels

UltraTech Versatile

Wall & Ceiling Panel
ECO*safe* PIR

Insulation Core

UltraTech Versatile ECO*safe* PIR panels feature an environmentally sustainable closed-cell PIR insulation core which is non-deleterious with Zero Ozone Depletion Potential (Zero ODP).
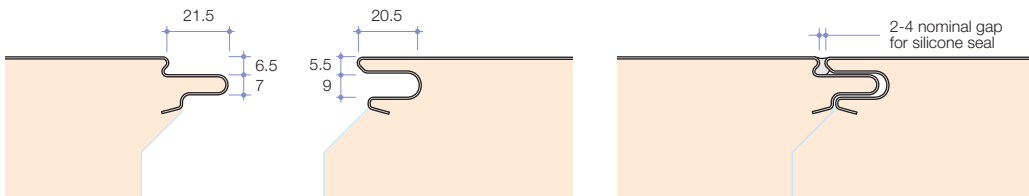
ECO*safe*

Biological

UltraTech Versatile ECO*safe* PIR panels are resistant to attack from mould, fungi, mildew and vermin. No urea formaldehyde is used in the manufacture of the panels. UltraTech Versatile ECO*safe* PIR panels can incorporate project-specific HYGIENE*safe*, wash and clean down facings.

Panel Joint

The panel side joint is a unique engineered joint which achieves excellent air leakage, thermal and structural performance.
The panel side joint can accomodate vapour, hygiene and fire rated seals and can be silicone sealed for regulatory compliance.

Airtightness

UltraTech Versatile ECO*safe* PIR panels achieve an airtightness of $0.02 m^3/hr/m^2$ at 50Pa in accordance with EN 14509.

Watertightness

UltraTech Versatile ECO*safe* PIR panels are watertight to 1050Pa (Class B) according to EN 14509.

Kingspan
Insulated Panels

UltraTech Versatile

Wall & Ceiling Panel
ECO*safe* PIR

Substrate

Standard

- Hot dipped S220GD + Za zinc / aluminium coated metal to EN 10326 (continuously hot-dip coated strip and sheet of structural steels, technical delivery conditions).

- Metallic protected steel to BS EN 10346:2009.

- Nominal thickness: Interior / exterior 0.5mm or 0.63mm.

Coating

Kingspan CLEAN*safe* 15

Kingspan CLEAN*safe* 15 is a basic polyester coating suitable for standard internal environments, providing reasonable chemical and humidity corrosion resistance.

- Polyester coating: 15µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: No

Kingspan CLEAN*safe* 25

Kingspan CLEAN*safe* 25 is a polyester coating suitable for moderately aggressive internal environments, providing good chemical and humidity corrosion resistance.

- Polyester coating: 25µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan CLEAN*safe* 55

Kingspan CLEAN*safe* 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.

- PET film: 55µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan HYGIENE*safe*

Kingspan HYGIENE*safe* is our unique chemically inert, anti-bacterial coating. A rigid polyvinylchloride (PVC) phthalate-free coating applied to pre-treated metal and suitable for humid and chemically aggressive internal environments.

- PVC Rigid film: 120µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan CLEAN*safe* 304 (316 available on request)

CLEAN*safe* 304 is cold rolled annealed austenitic stainless steel, suitable for corrosive internal environments.

- Mill finish stainless steel – grade 304

- Finish 2B

- Nominal thickness: 0.63mm

- Protection film: Yes (standard)

Colour Range

RAL 9010* and RAL 9002*

*Nearest match, samples available on request.
Other colours available on request.

Sustainability

- GWP: Low GWP with Zero ODP.

- Cradle to Grave: May be Green Guide A+ rating as per the BRE Global Green Guide to Specification. Subject to project specific assessment;

- End of Life: Fully recyclable through conventional shredder plants.

- Responsible Sourcing: Kingspan manufacturing plants are ISO 14001 (Environmental) accredited.

Quality and Durability

UltraTech Versatile panels are manufactured from the highest quality materials using state-of-the-art production equipment to rigorous quality control standards; ensuring long-term reliability and service life. All UltraTech Cleanroom Systems products are fully compliant with ISO 9001 (Quality), ISO 14001 (Environmental) and ISO 18001 (Health & Safety).

Packing

Standard Packing

UltraTech Versatile panels are stacked horizontally with facing sheets upward. The entire pack is wrapped in polythene.
The number of panels in each pack depends on panel length, weight and thickness. Typical pack height is 1200mm, maximum pack weight is 1500kg.

Sea Freight

Fully timber crated packs are available on projects requiring delivery by sea freight shipping, at additional cost. Alternatively, steel containers can be used. Special loading charges apply.

Delivery

All deliveries (unless indicated otherwise) are by road transport, to project site. Off-loading is the responsibility of the client.

Panel lengths of 13.5m-19.5m are subject to additional transport charge.

Kingspan
Insulated Panels

UltraTech Versatile

Wall & Ceiling Panel
ECO*safe* PIR

Applications

UltraTech Versatile ECO*safe* PIR panels are designed for all internal cleanroom applications including new build and refurbishment projects.

Dimensions, Weight & Performance

Overall Thickness (mm)	40, 60, 80, 100, 120, 140, 170, 200, 220
Lengths	1.2m-19.2m*
Cover Width	1180mm**
Weight (0.6 / 0.6 steel)	11.52kg/m^2
Thermal Conductivity	0.020 W/mK

*Panel lengths 13.5m to 19.2m are subject to additional transport surcharges.
**1120mm panel width can be supplied for container transport.

Product Tolerances

Length	+ 1.5mm	- 1.5mm
Width	+ 2.0mm	- 2.0mm
Thickness	+ 2.0mm	- 2.0mm
Flatness (per metre)	+ 0.5mm	- 0.5mm
End Squareness	+ 2.0mm	- 2.0mm

1120/1180 Cover Width
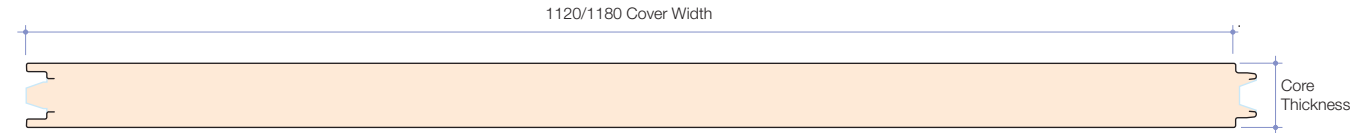
Core Thickness

Core Thickness (mm)	40	60	80	100	120	140	170	200	220
Weight (0.6 / 0.6) (kg/m^2)	9.92	10.72	11.52	12.32	13.12	13.92	15.10	16.32	17.12
U-value (W/m^{2}K)	0.45	0.31	0.24	0.19	0.16	0.14	0.12	0.10	0.10

Notes: These values are in accordance with BS EN 14509, using Finite Element Analysis, and take into account any thermal bridging through the longitudinal joint. The U-values have been calculated using an aged thermal conductivity value of 0.020W/mK.

Fire Performance

■ Reaction to Fire:
  B-s2, d0 for thickness of 40mm
  B-s1,d0 for panel thickness 60-220mm

■ FM approval standard 4880 No height restriction.

Fire Resistance

The panel provides the following resistance to fire:

■ EI30 for a thickness of 100mm with stitching each 300mm at the interlocking section on both sides.

■ EI30 for a thickness of 120mm.

■ EI60 for a thickness of 200mm.

Acoustic Performance

Panels have a predicted single figure weighted sound reduction of R_w= 25dB.

Airtightness

Panel achieves an air tightness of: 0.04m^3/hr/m^2 at 50Pa.

19   19   2-4 nominal gap for silicone seal

9   8.5
7   9

Kingspan
Insulated Panels

UltraTech Versatile

Wall & Ceiling Panel
ECO*safe* PIR

Substrate

Standard

- Hot dipped S220GD + Za zinc / aluminium coated metal to EN 10326 (continuously hot-dip coated strip and sheet of structural steels, technical delivery conditions).

- Metallic protected steel to BS EN 10346:2009.

- Nominal thickness: Interior / exterior 0.5mm or 0.6mm.

Coating

Kingspan CLEAN*safe* 15

Kingspan CLEAN*safe* 15 is a basic polyester coating suitable for standard internal environments, providing reasonable chemical and humidity corrosion resistance.

- Polyester coating: 15µm

- Nominal thickness: 0.6mm (incl coating)

- Protection film: No

Kingspan CLEAN*safe* 25

Kingspan CLEAN*safe* 25 is a polyester coating suitable for moderately aggressive internal environments, providing good chemical and humidity corrosion resistance.

- Polyester coating: 25µm

- Nominal thickness: 0.6mm (incl coating)

- Protection film: Yes (standard)

Kingspan CLEAN*safe* 55

Kingspan CLEAN*safe* 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.

- PET film: 55µm

- Nominal thickness: 0.6mm (incl coating)

- Protection film: Yes (standard)

Kingspan HYGIENE*safe*

Kingspan HYGIENE*safe* is our unique chemically inert, anti-bacterial coating. A rigid polyvinylchloride (PVC) phthalate-free coating applied to pre-treated metal and suitable for humid and chemically aggressive internal environments.

- PVC Rigid film: 120µm

- Nominal thickness: 0.6mm (incl coating)

- Protection film: Yes (standard)

Kingspan CLEAN*safe* 304 (316 available on request)

CLEAN*safe* 304 is cold rolled annealed austenitic stainless steel, suitable for corrosive internal environments.

- Mill finish stainless steel – grade 304

- Finish 2B

- Nominal thickness: 0.6mm

- Protection film: Yes (standard)

Colour Range

RAL 9010* and RAL 9002*
*Nearest match, samples available on request.
Other colours available on request.

Sustainability

- GWP: Low GWP with Zero ODP.

- Cradle to Grave: May be Green Guide A+ rating as per the BRE Global Green Guide to Specification. Subject to project specific assessment;

- End of Life: Fully recyclable through conventional shredder plants.

- Responsible Sourcing: Kingspan manufacturing plants are ISO 14001 (Environmental) accredited.

Quality and Durability

UltraTech Versatile panels are manufactured from the highest quality materials using state-of-the-art production equipment to rigorous quality control standards; ensuring long-term reliability and service life. All UltraTech Cleanroom Systems products are fully compliant with ISO 9001 (Quality), ISO 14001 (Environmental) and ISO 18001 (Health & Safety).

Packing

Standard Packing

UltraTech Versatile panels are stacked horizontally with facing sheets upward. The entire pack is wrapped in polythene.
The number of panels in each pack depends on panel length, weight and thickness. Typical pack height is 1200mm, maximum pack weight is 1500kg.

Sea Freight

Fully timber crated packs are available on projects requiring delivery by sea freight shipping, at additional cost. Alternatively, steel containers can be used. Special loading charges apply.

Delivery

All deliveries (unless indicated otherwise) are by road transport, to project site. Off-loading is the responsibility of the client.

Panel lengths of 13.5m-19.5m are subject to additional transport charge.

Kingspan
Insulated Panels

UltraTech

Versatile Wall & Ceiling Panel MF Core

Applications

The UltraTech Versatile MF panels are designed for cleanroom environments where fire safety is important. The panels are suitable for all internal Cleanroom applications including new build and refurbishment projects. The UltraTech Versatile mineral fibre panels are typically installed vertically, also suitable for Horizontally installed applications.

Dimensions, Weight & Performance

Overall Thickness	80mm
Standard Width*	1170mm
Length**	1.2m-19.2m

* 1120mm cover width available for container transport.
**Panel lengths 13.5m-19.2m subject to additional transport charge.

Product Tolerances

Length	+ 1.5mm	- 1.5mm
Width	+ 2.0mm	- 2.0mm
Thickness	+ 2.0mm	- 2.0mm
Flatness (per metre)	+ 1.0mm	- 1.0mm
End Squareness	+ 2.0mm	- 2.0mm

1170mm Cover Width
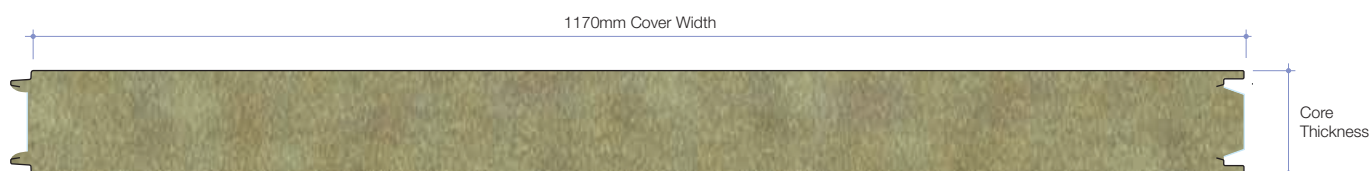
Core Thickness

MF 50C: $\lambda = 0.041$ W/m.K

Core Thickness (mm)	60	80	100	120	150	170	200	240	300
Weight (0.6 / 0.5) (kg/m^2)	14.93	16.83	18.73	20.63	23.48	25.38	28.23	32.03	37.63
U-value (W/m^{2}K)	0.62	0.48	0.39	0.33	0.26	0.23	0.20	0.17	0.13

MF 50F: $\lambda = 0.044$ W/m.K

Core Thickness (mm)	60	80	100	120	150	170	200	240	300
Weight (0.6 / 0.5) (kg/m^2)	16.43	18.83	21.23	23.63	27.23	29.63	32.33	38.03	45.23
U-value (W/m^{2}K)	0.67	0.51	0.41	0.35	0.28	0.25	0.21	0.18	0.14

Insulation

UltraTech Versatile MF panels feature a mineral wool insulation core, 50C and 50F, consisting of vertically-oriented fibres. As a result of this orientation, the panels provide excellent mechanical properties (high tensile and compression strength).

Density

The nominal density is as below:

- 50C = 95kg/m^3.
- 50F = 120kg/m^3.

Fire Performance

- Reaction to fire: A2-S$_1$,d0 according to EN 13501.
- FM approval standard 4880 (2005).

Fire Resistance

50F MF insulation core, partition and wall applications.

- EI 60: 80mm or greater horizontal and vertical installation up to 4m span.
- EI 90: 100mm horizontal and vertical installation up to 4m span (stitching screw obligatory every 300mm in the joint on both sides of the panel).
- EI 120: 120mm or greater vertical installation up to 4m span. Horizontal installation up to 6m span.
- EI 180: 300mm vertical and horizontal installation up to 4m span.

Acoustic Performance

UltraTech Versatile MF panels have a predicted single figure weighted sound reduction R$_w$ = 29dB.

Kingspan
Insulated Panels

UltraTech

Versatile Wall & Ceiling Panel MF Core

Biological

UltraTech Versatile MF panels are resistant to attack from mould, fungi, mildew and vermin. No urea formaldehyde is used in the manufacture of the panels. UltraTech Versatile MF panels can incorporate project-specific HYGIENE*safe*, wash and clean down facings.

Panel Joint

UltraTech Versatile MF panels feature a symmetric tongue and groove connection with excellent thermal and structural performance.

Nominal 4-5mm gap for silicone seal

Silicone seal
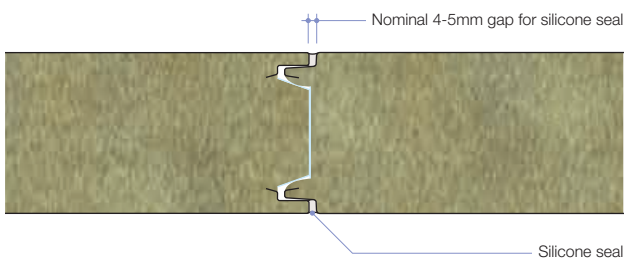
Watertightness

UltraTech Versatile MF panels are watertight to 1050Pa (Class B) according to EN 14509.

Substrate

Standard

- Hot dipped S220GD + Za zinc / aluminium coated metal to EN 10326 (continuously hot-dip coated strip and sheet of structural steels, technical delivery conditions).

- Metallic protected steel to BS EN 10346:2009.

- Nominal thickness: Interior/exterior 0.5mm or 0.6mm.

Coating

Kingspan CLEAN*safe* 15

Kingspan CLEAN*safe* 15 is a basic polyester coating suitable for standard internal environments, providing reasonable chemical and humidity corrosion resistance.

- Polyester coating: 15μm

- Nominal thickness: Interior/exterior 0.5mm or 0.6mm (incl. coating)

- Protection film: No

Kingspan CLEAN*safe* 25

Kingspan CLEAN*safe* 25 is a polyester coating suitable for moderately aggressive internal environments, providing good chemical and humidity corrosion resistance.

- Polyester coating: 25μm

- Nominal thickness: Interior/exterior 0.5mm or 0.6mm (incl. coating)

- Protection film: Yes (standard)

Kingspan CLEAN*safe* 55

Kingspan CLEAN*safe* 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.

- PET film: 55μm

- Nominal thickness: Interior/exterior 0.5mm or 0.6mm (incl. coating)

- Protection film: Yes (standard)

Kingspan HYGIENE*safe*

Kingspan HYGIENE*safe* is our unique chemically inert, anti-static, anti-bacterial coating. A rigid polyvinylchloride (PVC) phthalate-free coating applied to pre-treated metal and suitable for humid and chemically aggressive internal environments.

- PVC Rigid film: 120μm

- Nominal thickness: Interior/exterior 0.5mm or 0.6mm (incl. coating)

- Protection film: Yes (standard)

Kingspan CLEAN*safe* 304 (316 available on request)

CLEAN*safe* 304 is cold rolled annealed austenitic stainless steel, suitable for corrosive internal environments.

- Mill finish stainless steel – grade 304

- Finish 2B

- Nominal thickness: Interior/exterior 0.5mm or 0.6mm

- Protection film: Yes (standard)

Kingspan
Insulated Panels

Colour Range

RAL 9010* and RAL 9002*

*Nearest match, samples available on request.

Other colours available on request.

Sustainability

- GWP: Low GWP with Zero ODP.

- Cradle to Grave: May be Green Guide A+ rating as per the BRE Global Green Guide to Specification. Subject to project specific assessment;

- End of Life: Fully recyclable through conventional shredder plants.

- Responsible Sourcing: Kingspan manufacturing plants are ISO 14001 (Environmental) accredited.

Quality and Durability

UltraTech Versatile MF panels are manufactured from the highest quality materials using state-of-the-art production equipment to rigorous quality control standards; ensuring long-term reliability and service life. All UltraTech Cleanroom Systems are fully compliant with ISO 9001 (Quality), ISO 14001 (Environmental) and ISO 18001 (Health & Safety).

Packing

Standard Packing

UltraTech Versatile MF are stacked horizontally with facing sheets upward. The entire pack is wrapped in polythene. The number of panels in each pack depends on panel length. Typical pack height is 1200mm, maximum pack weight is 1500kg.

Sea Freight

Fully timber crated packs are available on projects requiring delivery by sea freight shipping, at additional cost. Alternatively, steel containers can be used. Special loading charges apply.

Delivery

All deliveries (unless indicated otherwise) are by road transport, to project site. Off-loading is the responsibility of the client.

Panel lengths of 13.5m-19.5m are subject to additional transport charge.

UltraTech Versatile

De-Ended Panels

Kingspan UltraTech Versatile 1100mm panels have a unique de-ended panel solution, available for 80mm thickness panels only. This allows for fully flush integration with a range of cleanroom accessories.

The panel core, IPN Quadcore, ECO*safe* PIR or MF is factory routered from the bottom of the Versatile wall panels. Aluminium top hat profile is placed into the de-ended panel with the panel face folded around. Patent pending.

UltraTech Versatile panels are available with de-ending to both top and bottom of the panel. This unique detail allows for flush integration into our adjustable floor track.

Top hat

Folded panel ends

Flush window

Versatile wall panel de-ended top and bottom

Adjustable floor track

80mm

Top hat inserted into machined channel prior to folding panel ends

Panel face folded around - external bend radius 2mm ±0.5mm

Kingspan
Insulated Panels

UltraTech Precision

Wall & Ceiling Panel
ECO*safe* PIR
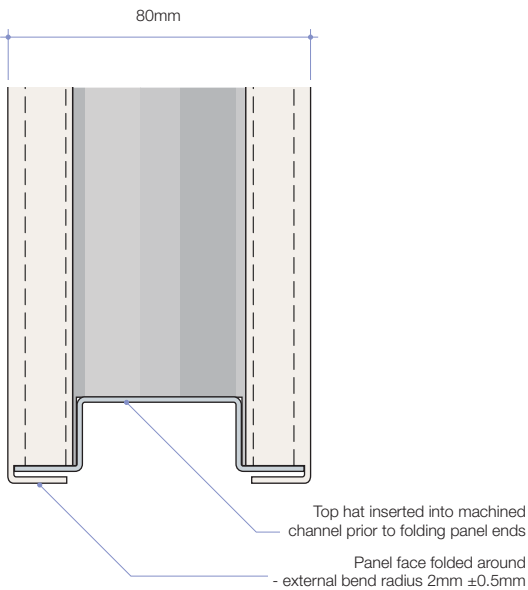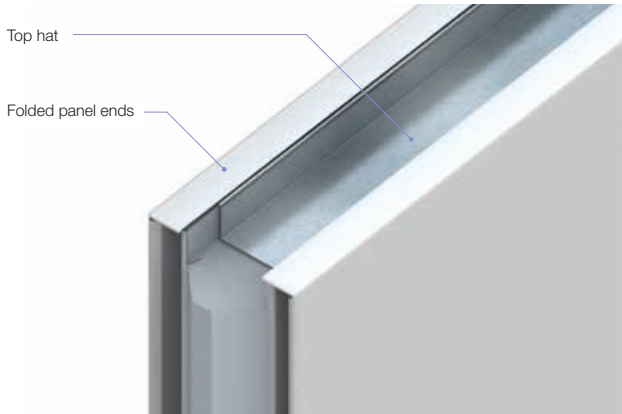
Applications

UltraTech Precision ECO*safe* PIR panels are suitable for all internal cleanroom applications including new build and refurbishment projects across a variety of sectors, including pharmaceutical and bio-technology laboratories; healthcare; medical research and advanced technology facilities.

Dimensions, Weight & Performance

Overall Thickness	80mm
Standard Widths*	300, 600, 900, 1200mm
Length	300-5700mm
Weight (0.63 / 0.63 steel)	18kg/m²
Thermal Conductivity	0.019 W/mK

* Variable widths available in 10mm increments. Minimum width 150mm.

Product Tolerances

Length	+ 1.5mm	- 1.5mm
Width	+ 1.5mm	- 1.5mm
Thickness	+ 2.0mm	- 2.0mm
Flatness (per metre)	+ 0.5mm	- 0.5mm
End Squareness	+ 2.0mm	- 2.0mm

300, 600, 900 and 1200mm Cover Width (1200mm cover width shown)

80mm
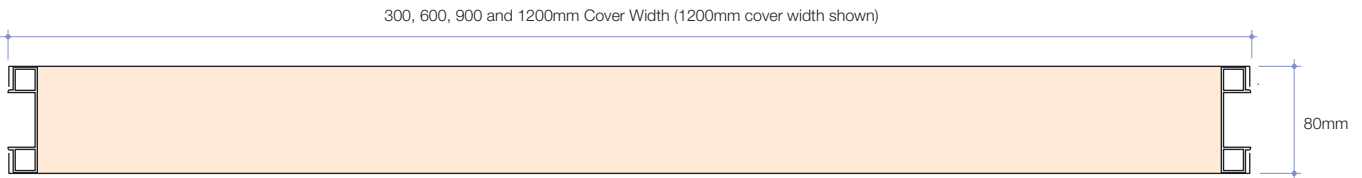
Fire Performance

Surface Spread of Flame: The steel outer and inner facings have Class 1 surface spread of flame to BS 476-1: 1997 (Fire tests on building materials and structures. Method of test to determine the classification of the surface spread of flame of products) and are Class 0, as defined by Building Regulations.

Acoustic Performance

UltraTech Precision ECO*safe* PIR panels have a predicted single figure weighted sound reduction R_w = 24dB.

Sound Reduction Index (SRI)

Frequency (Hz)	SRI (dB)
63	20
125	15
250	17
500	23
1000	18
2000	25
4000	40
8000	46

Insulation Core

UltraTech Precision ECO*safe* PIR panels feature an environmentally sustainable closed-cell PIR insulation core which is non-deleterious with Zero Ozone Depletion Potential (Zero ODP).

Biological

UltraTech Precision ECO*safe* PIR panels are resistant to attack from mould, fungi, mildew and vermin. No urea formaldehyde is used in the manufacture of the panels. UltraTech Precision ECO*safe* PIR panels can incorporate project-specific HYGIENE*safe*, wash and clean down facings.

Panel Joint

UltraTech Precision ECO*safe* PIR panels feature a unique aluminium perimeter profile on all sides to create a fully flush joint. The panel side joint can accommodate a hygienic silicone seal finish. The joint created between the wall panels also allows for concealment of services.

Aluminium key way 35x40x35mm   Nominal 4-5mm gap for silicone seal

Silicone seal

Airtightness

UltraTech Precision ECO*safe* PIR panels achieve airtightness of less than 0.003m³/hr/m² at 50Pa in accordance with EN 14509

Watertightness

UltraTech Precision ECO*safe* PIR panels are watertight to 1050Pa (Class B) according to EN 14509.

Kingspan
Insulated Panels

UltraTech Precision

Wall & Ceiling Panel
ECO*safe* PIR

Substrate

Standard

- Hot dipped S220GD + Za zinc / aluminium coated metal to EN 10326 (continuously hot-dip coated strip and sheet of structural steels, technical delivery conditions).

- Metallic protected steel to BS EN 10346:2009.

- Nominal thickness: Interior / exterior 0.63mm.

Coating

Kingspan CLEAN*safe* 15

Kingspan CLEAN*safe* 15 is a basic polyester coating suitable for standard internal environments, providing reasonable chemical and humidity corrosion resistance.

- Polyester coating: 15µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: No

Kingspan CLEAN*safe* 25

Kingspan CLEAN*safe* 25 is a polyester coating suitable for moderately aggressive internal environments, providing good chemical and humidity corrosion resistance.

- Polyester coating: 25µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan CLEAN*safe* 55

Kingspan CLEAN*safe* 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.

- PET film: 55µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan HYGIENE*safe*

Kingspan HYGIENE*safe* is our unique chemically inert, anti-bacterial coating. A rigid polyvinylchloride (PVC) phthalate-free coating applied to pre-treated metal and suitable for humid and chemically aggressive internal environments.

- PVC Rigid film: 120µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan CLEAN*safe* 304 (316 available on request)

CLEAN*safe* 304 is cold rolled annealed austenitic stainless steel, suitable for corrosive internal environments.

- Mill finish stainless steel – grade 304

- Finish 2B

- Nominal thickness: 0.63mm

- Protection film: Yes (standard)

Colour Range

RAL 9010* and RAL 9002*

*Nearest match, samples available on request.

Other colours available on request.

Sustainability

- GWP: Low GWP with Zero ODP.

- Cradle to Grave: May be Green Guide A+ rating as per the BRE Global Green Guide to Specification. Subject to project specific assessment;

- End of Life: Fully recyclable through conventional shredder plants.

- Responsible Sourcing: Kingspan manufacturing plants are ISO 14001 (Environmental) accredited.

Quality and Durability

UltraTech Precision ECO*safe* PIR panels are manufactured from the highest quality materials using state-of-the-art production equipment to rigorous quality control standards; ensuring long-term reliability and service life. All UltraTech Cleanroom Systems are fully compliant with ISO 9001 (Quality), ISO 14001 (Environmental) and ISO 18001 (Health & Safety).

Packing

Standard Packing

UltraTech Precision ECO*safe* PIR panels are stacked horizontally with facing sheets upward. The entire pack is wrapped in polythene. The number of panels in each pack depends on panel length. Typical pack height is 1200mm, maximum pack weight is 1500kg.

Sea Freight

Fully timber crated packs are available on projects requiring delivery by sea freight shipping, at additional cost. Alternatively, steel containers can be used. Special loading charges apply.

Delivery

All deliveries (unless indicated otherwise) are by road transport, to project site. Off-loading is the responsibility of the client.

Kingspan
Insulated Panels

UltraTech Precision

Wall & Ceiling Panel
MF Core

Applications

UltraTech Precision MF Core panels are suitable for all internal cleanroom applications including new build and refurbishment projects across a variety of sectors, including pharmaceutical and bio-technology laboratories; healthcare; medical research and advanced technology facilities.

Dimensions, Weight & Performance

Overall Thickness	80mm
Standard Widths*	300, 600, 900 and 1200mm
Length	300-5700mm
Weight (0.63 / 0.63 steel)	21kg/m²
Thermal Conductivity	0.041 W/mK

* Variable widths available in 10mm increments. Minimum width 150mm.

Product Tolerances

Length	+ 1.5mm	- 1.5mm
Width	+ 1.5mm	- 1.5mm
Thickness	+ 2.0mm	- 2.0mm
Flatness (per metre)	+ 0.5mm	- 0.5mm
End Squareness	+ 2.0mm	- 2.0mm

300, 600, 900 and 1200mm Cover Width (1200mm cover width shown)

80mm

Fire Performance

- Reaction to fire: A2-S$_1$,d0 according to EN 13501.

- Surface Spread of Flame: The steel outer and inner facings have Class 1 surface spread of flame to BS 476-1: 1997 (Fire tests on building materials and structures. Method of test to determine the classification of the surface spread of flame of products) and are Class 0, as defined by Building Regulations.

Acoustic Performance

UltraTech Precision MF Core panels have a predicted single figure weighted sound reduction R_w = 31dB.

Sound Reduction Index (SRI)

Frequency (Hz)	SRI (dB)
63	17
125	21
250	26
500	30
1000	31
2000	39
4000	47

Insulation Core

UltraTech Precision MF Core panels feature a core consisting of vertically-oriented mineral fibres. As a result of this orientation, the panels provide excellent mechanical properties (high tensile and compression strength).

Biological

UltraTech Precision MF Core panels are resistant to attack from mould, fungi, mildew and vermin. No urea formaldehyde is used in the manufacture of the panels. UltraTech Precision MF Core panels can incorporate project-specific HYGIENE*safe*, wash and clean down facings.

Panel Joint

UltraTech Precision MF Core panels feature a unique aluminium perimeter profile on all sides to create a fully flush joint. The panel side joint can accommodate a hygienic silicone seal. The cavity created between wall panels allows for a concealment of services.

Aluminium key way 35x40x35mm   Nominal 4-5mm gap for silicone seal

Silicone seal
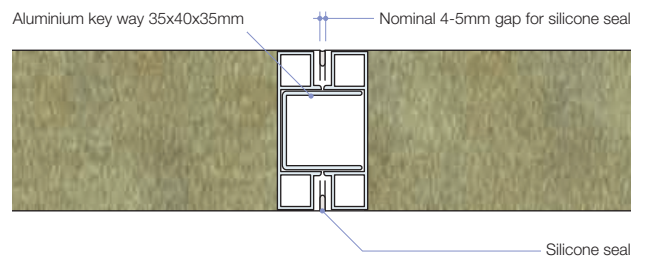
Airtightness

UltraTech Precision MF Core panels achieve airtightness of less than 0.003m³/hr/m² at 50Pa in accordance with EN 14509

Watertightness

UltraTech Precision MF Core panels are watertight to 1050Pa (Class B) according to EN 14509.

Kingspan
Insulated Panels

UltraTech Precision

Wall & Ceiling Panel
MF Core

Substrate

Standard

- Hot dipped S220GD + Za zinc / aluminium coated metal to EN 10326 (continuously hot-dip coated strip and sheet of structural steels, technical delivery conditions).

- Metallic protected steel to BS EN 10346:2009.

- Nominal thickness: Interior / exterior 0.63mm.

Coating

Kingspan CLEAN*safe* 15

Kingspan CLEAN*safe* 15 is a basic polyester coating suitable for standard internal environments, providing reasonable chemical and humidity corrosion resistance.

- Polyester coating: 15µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: No

Kingspan CLEAN*safe* 25

Kingspan CLEAN*safe* 25 is a polyester coating suitable for moderately aggressive internal environments, providing good chemical and humidity corrosion resistance.

- Polyester coating: 25µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan CLEAN*safe* 55

Kingspan CLEAN*safe* 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.

- PET film: 55µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan HYGIENE*safe*

Kingspan HYGIENE*safe* is our unique chemically inert, anti-bacterial coating. A rigid polyvinylchloride (PVC) phthalate-free coating applied to pre-treated metal and suitable for humid and chemically aggressive internal environments.

- PVC Rigid film: 120µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan CLEAN*safe* 304 (316 available on request)

CLEAN*safe* 304 is cold rolled annealed austenitic stainless steel, suitable for corrosive internal environments.

- Mill finish stainless steel – grade 304

- Finish 2B

- Nominal thickness: 0.63mm

- Protection film: Yes (standard)

Colour Range

RAL 9010* and RAL 9002*
*Nearest match, samples available on request.
Other colours available on request.

Sustainability

- GWP: Low GWP with Zero ODP.

- Cradle to Grave: May be Green Guide A+ rating as per the BRE Global Green Guide to Specification. Subject to project specific assessment;

- End of Life: Fully recyclable through conventional shredder plants.

- Responsible Sourcing: Kingspan manufacturing plants are ISO 14001 (Environmental) accredited.

Quality and Durability

UltraTech Precision MF Core panels are manufactured from the highest quality materials using state-of-the-art production equipment to rigorous quality control standards; ensuring long-term reliability and service life. All UltraTech Cleanroom Systems are fully compliant with ISO 9001 (Quality), ISO 14001 (Environmental) and ISO 18001 (Health & Safety).

Packing

Standard Packing

UltraTech Precision MF Core panels are stacked horizontally with facing sheets upward. The entire pack is wrapped in polythene. The number of panels in each pack depends on panel length. Typical pack height is 1200mm, maximum pack weight is 1500kg.

Sea Freight

Fully timber crated packs are available on projects requiring delivery by sea freight shipping, at additional cost. Alternatively, steel containers can be used. Special loading charges apply.

Delivery

All deliveries (unless indicated otherwise) are by road transport, to project site. Off-loading is the responsibility of the client.

Kingspan
Insulated Panels

UltraTech Precision

Wall & Ceiling Panel
Aluminium Honeycomb

Applications

UltraTech Precision Aluminium Honeycomb panels are suitable for all internal cleanroom applications including new build and refurbishment projects across a varietly of sectors, including pharmaceutical and bio-technology laboratories; healthcare; medical research and advanced technology facilities.

Dimensions, Weight & Performance

Overall Thickness	80mm
Standard Widths*	300, 600, 900 and 1200mm
Length	300-5700mm
Weight (0.63 / 0.63 steel)	17kg/m²

* Variable widths available in 10mm increments. Minimum width 150mm.

Product Tolerances

Length	+ 1.5mm	- 1.5mm
Width	+ 1.5mm	- 1.5mm
Thickness	+ 2.0mm	- 2.0mm
Flatness (per metre)	+ 0.5mm	- 0.5mm
End Squareness	+ 2.0mm	- 2.0mm

300, 600, 900 and 1200mm Cover Width (1200mm cover width shown)

80mm
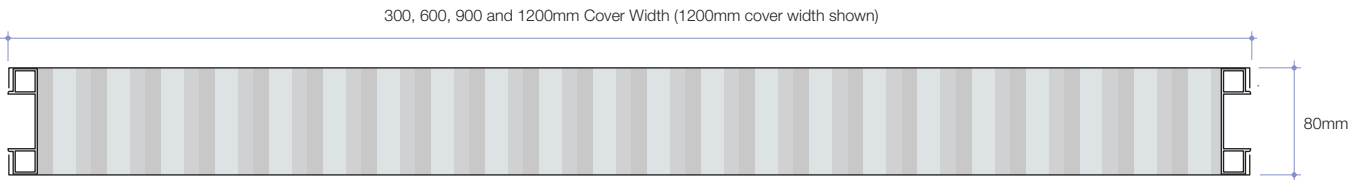
Insulation Core

UltraTech Precision Aluminium Honeycomb panels feature an aluminium honeycomb structure inside, providing excellent rigidity at minimal weight. Due to the efficient hexagonal configuration, compression strength of the honeycomb core is typically higher (at same weight) compared to other types of core materials.

Biological

UltraTech Precision Aluminium Honeycomb panels are resistant to attack from mould, fungi, mildew and vermin. No urea formaldehyde is used in the manufacture of the panels. UltraTech Precision Aluminium Honeycomb panels can incorporate project-specific HYGIENE*safe*, wash and clean down facings.

Panel Joint

UltraTech Precision Aluminium Honeycomb panels feature a unique aluminium perimeter profile on all sides to create a fully flush joint. The panel side joint can accommodate a hygienic silicone seal finish. The joint created between the wall panels also allows for concealment of services.
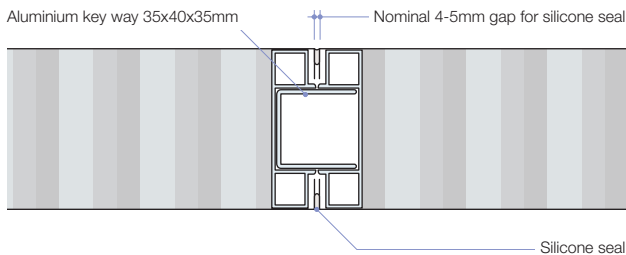
Airtightness

UltraTech Precision Aluminium Honeycomb panels achieve airtightness of less than 0.003m³/hr/m² at 50Pa in accordance with EN 14509.

Watertightness

UltraTech Precision Aluminium Honeycomb panels are watertight to 1050Pa (Class B) according to EN 14509.

Aluminium key way 35x40x35mm — Nominal 4-5mm gap for silicone seal

Silicone seal

Kingspan
Insulated Panels

UltraTech Precision

Wall & Ceiling Panel
Aluminium Honeycomb

Substrate

Standard

- Hot dipped S220GD + Za zinc / aluminium coated metal to EN 10326 (continuously hot-dip coated strip and sheet of structural steels, technical delivery conditions).

- Metallic protected steel to BS EN 10346:2009.

- Nominal thickness: Interior / exterior 0.63mm.

Coating

Kingspan CLEANsafe 15

Kingspan CLEANsafe 15 is a basic polyester coating suitable for standard internal environments, providing reasonable chemical and humidity corrosion resistance.

- Polyester coating: 15μm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: No

Kingspan CLEANsafe 25

Kingspan CLEANsafe 25 is a polyester coating suitable for moderately aggressive internal environments, providing good chemical and humidity corrosion resistance.

- Polyester coating: 25μm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

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.

- PET film: 55μm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan HYGIENEsafe

Kingspan HYGIENEsafe is our unique chemically inert, anti-bacterial coating. A rigid polyvinylchloride (PVC) phthalate-free coating applied to pre-treated metal and suitable for humid and chemically aggressive internal environments.

- PVC Rigid film: 120μm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan CLEANsafe 304 (316 available on request)

CLEANsafe 304 is cold rolled annealed austenitic stainless steel, suitable for corrosive internal environments.

- Mill finish stainless steel – grade 304

- Finish 2B

- Nominal thickness: 0.63mm

- Protection film: Yes (standard)

Colour Range

RAL 9010* and RAL 9002*
*Nearest match, samples available on request.
Other colours available on request.

Sustainability

- GWP: Low GWP with Zero ODP.

- Cradle to Grave: May be Green Guide A+ rating as per the BRE Global Green Guide to Specification. Subject to project specific assessment;

- End of Life: Fully recyclable through conventional shredder plants.

- Responsible Sourcing: Kingspan manufacturing plants are ISO 14001 (Environmental) accredited.

Quality and Durability

UltraTech Precision Aluminium Honeycomb panels are manufactured from the highest quality materials using state-of-the-art production equipment to rigorous quality control standards; ensuring long-term reliability and service life. All UltraTech Cleanroom Systems are fully compliant with ISO 9001 (Quality), ISO 14001 (Environmental) and ISO 18001 (Health & Safety).

Packing

Standard Packing

UltraTech Precision Aluminium Honeycomb panels are stacked horizontally with facing sheets upward. The entire pack is wrapped in polythene. The number of panels in each pack depends on panel length. Typical pack height is 1200mm, maximum pack weight is 1500kg.

Sea Freight

Fully timber crated packs are available on projects requiring delivery by sea freight shipping, at additional cost. Alternatively, steel containers can be used. Special loading charges apply.

Delivery

All deliveries (unless indicated otherwise) are by road transport, to project site. Off-loading is the responsibility of the client.

Kingspan
Insulated Panels

UltraTech

Panel Interface Profiles

Application

Extruded aluminium (6060 T5) Interface Profiles are used to provide a flush interface at Precision to Versatile (male or female) panels joints. Offering improved aesthetics and ease of cleaning in accordance with ISO 11998.

The profiles are available in powder coated RAL 9010 or RAL 9002 finish as standard to match door and window frames, with an optional anti-bacterial HYGIENE*safe* coating. Patent pending.
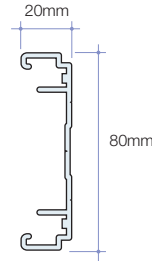
Installation

Silicone seal is required between interface profile and Versatile or Precision panels.

Available Lengths

Standard Lengths: 3 and 4 metres. Specific profile lengths are available on request.

Female Interface Profile   **Male Interface Profile**
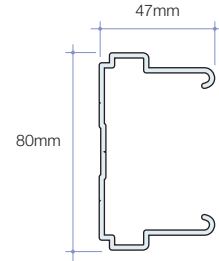
Part Reference	Weight	Thickness
Interface Profile - female joint	1.01kg/m	3mm
Interface Profile - male joint	0.92kg/m	3mm

Flush Panel Interface Precision / Versatile female
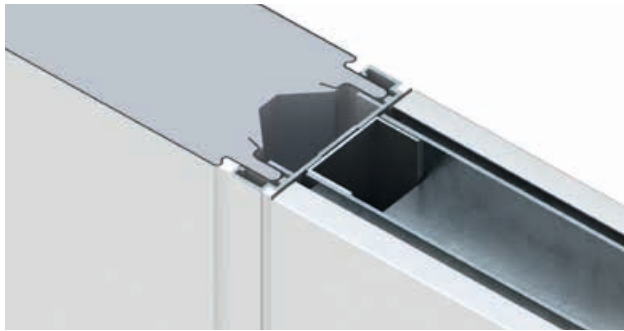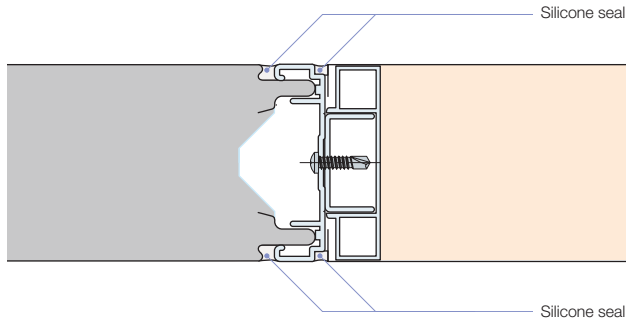
Flush Panel Interface Precision / Versatile male
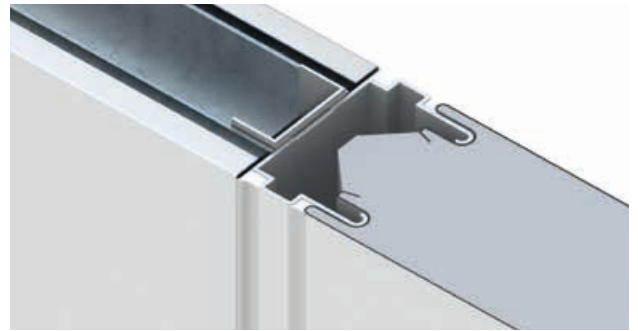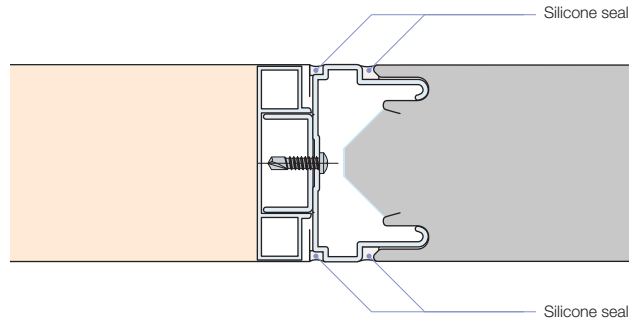
Female Interface Profile and Flush Window
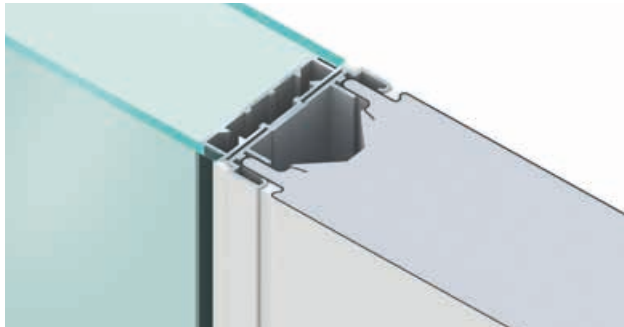
Female Interface Profile and Flush Door Jamb

Kingspan
Insulated Panels
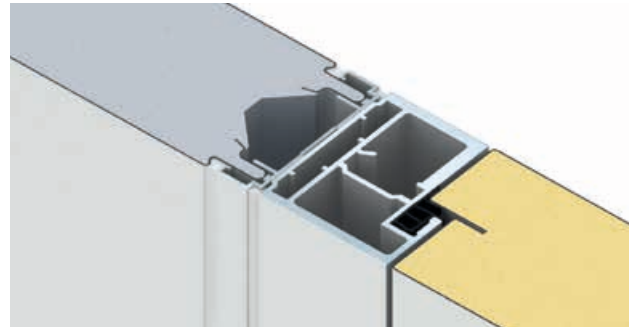
UltraTech

Ceiling Suspension Systems

Application

Kingspan UltraTech Ceiling Suspension Systems are designed to suit the customer's specific cleanroom requirements. They are offered as either a Versatile semi-flush ceiling suspension or a Precision fully-flush ceiling suspension system.

UltraTech Versatile Ceiling Suspension System

Suspension assembly

UltraTech Versatile
Ceiling Panel

UltraTech Versatile
Ceiling Panel

T-profile ceiling suspension
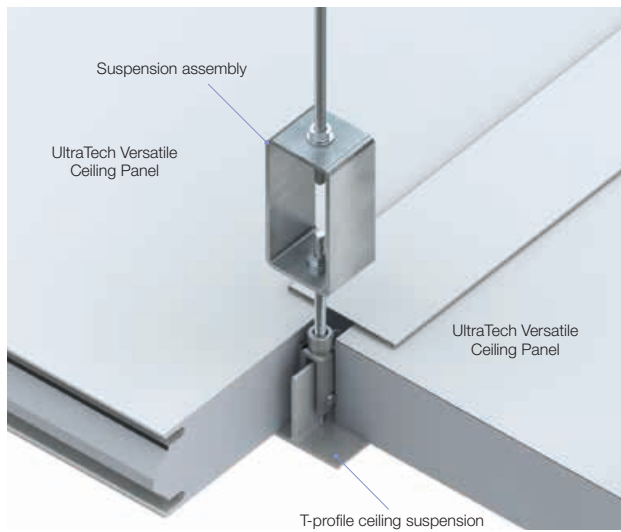
The UltraTech Versatile Ceiling Panels are available in three core options: IPN-QuadCore, PIR and MF Core. Refer to pages 4, 7,10 and 12 for thickness options.

UltraTech Precision Ceiling Suspension System

Suspension assembly

UltraTech Precision
Ceiling Panel

UltraTech Precision
Ceiling Panel

Fully flush recesssed
ceilng suspension
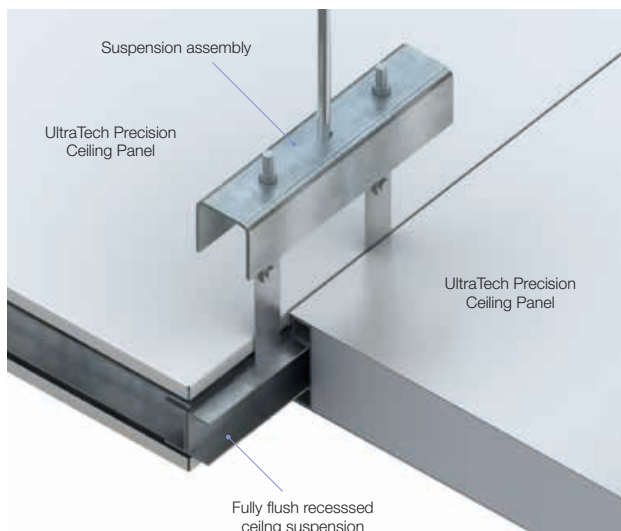
The UltraTech Precision Ceiling Panels are 80mm thick and are available in three core options: PIR, MF Core and Aluminium Honeycomb.

Features

UltraTech Ceiling Systems can accommodate the flush integration of cleanroom fittings such as lighting systems, supply and return air housings, and smaller ceiling mounted services.

The UltraTech Ceiling Suspension Systems are designed and classified as ceilings accessible for installation, occasional inspection and maintenance, minor repair only.

Please contact Kingspan Technical department for confirmation of loads and ceiling panel spans.

UltraTech Ceiling Suspension Systems are not designed for material storage.

Heavier building services such as air ducts, HEPA housings, piping and cable trays should not be supported from the ceiling suspension system.

Kingspan recommends that a separate walkway zone should be installed for highly trafficked areas of the walk on ceiling during and after installation.

Please contact the Kingspan Technical Department for an individual assessment of your cleanroom ceiling requirements.

Cut outs in panels for light fixtures
(factory cut outs optional - available on request)

Kingspan
Insulated Panels

UltraTech
Precision

Air Return
Panel

UltraTech Air Return Panels are a sealed modular, non-load-bearing wall system that have been designed to provide return air risers within the cleanroom wall panel thickness. The air return panels are easily integrated with the UltraTech partition wall system.

Each panel is pre-fabricated, consisting of two reinforced panel skin facings 0.63mm thick. The edges of the two skins are pressed to create a monobloc panel construction with smooth seamless edges. Bonded to the extruded aluminium perimeter frame to all sides.

UltraTech Air Return Panels are supplied with factory formed low level air return grilles and high level outlets eliminating both cutting and dust generation during on-site installation.

Application

UltraTech Air Return Panels have been specifically designed for use within cleanroom environments where the air cleanliness is stringently controlled and HEPA filtered to meet the required classification in accordance with ISO 14644-1.

Dimensions

Overall Thickness	80mm
Lengths	Max length 5700mm
Cover Width	900mm*

* Other widths available on request.

Fire Performance

The steel outer and inner facings have Class 1 surface spread of flame to BS 476-7: 1997 (Fire tests on building materials and structures. Method of test to determine the classification of the surface spread of flame of products) and are Class 0, as defined by Building Regulations.

Panel Joint

The panel joint has a unique self-supporting extruded aluminium frame to all sides. The panels are installed using an aluminium key connection profile between each panel. The key connection between the panels create a joint that can then be hygiene silicone sealed after installation.

Airtightness

The UltraTech panels achieved an air permeability per joint length of <0.003 m³/hr/m @ 200Pa in accordance with EN 14509.

Reinforcement

UltraTech Air Return Panels are reinforced using 11.6mm polypropylene honeycomb board, firmly bonded to the panel skins and reinforced with aluminium stiffeners.

Frame

The frames are constructed from 2mm thick extruded 6063 aluminium alloy to form a frame to all sides. Each frame is cut to length using a computerized saw for a perfect mitred corner joints, forming a neat butt joint connection between each section.

UltraTech Precision | Air Return Panel

Substrate

Standard

- The UltraTech Air Return Panels are manufactured from 0.63mm S220GD+ZA hot-dip zinc/aluminium coated steel to EN 10346: 2009.

- Metallic protected steel to BS EN 10346:2009.

Coating

Kingspan CLEANsafe 15

Kingspan CLEANsafe 15 is a basic polyester coating suitable for standard internal environments, providing reasonable chemical and humidity corrosion resistance.

- Polyester coating: 15µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: No

Kingspan CLEANsafe 25

Kingspan CLEANsafe 25 is a polyester coating suitable for moderately aggressive internal environments, providing good chemical and humidity corrosion resistance.

- Polyester coating: 25µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

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.

- PET film: 55µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan HYGIENEsafe

Kingspan HYGIENEsafe is our unique chemically inert, anti-bacterial coating. A rigid polyvinylchloride (PVC) phthalate-free coating applied to pre-treated metal and suitable for humid and chemically aggressive internal environments.

- PVC Rigid film: 120µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan CLEANsafe 304 (316 available on request)

CLEANsafe 304 is cold rolled annealed austenitic stainless steel, suitable for corrosive internal environments.

- Mill finish stainless steel – grade 304

- Finish 2B

- Nominal thickness: 0.63mm

- Protection film: Yes (standard)

Colour Range

RAL 9010* and RAL 9002*
*Nearest match, samples available on request.
Other colours available on request.

Guarantees

UltraTech panel system components are available with the Kingspan Guarantee on an individual project basis.

Quality and Durability

Kingspan components are manufactured from the highest quality materials, using state of the art production equipment to rigorous quality control standards, approved to ISO 9001:2000 standard, ensuring long-term reliability and service life. Kingspan manufacturing plants are ISO 14001 (Environmentally) and ISO 18001 (Health & Safety) accredited.

Packing

Standard Packing

UltraTech panel systems are stacked horizontally with facing sheets upward. The top and bottom, sides and ends are protected with polystyrene and timber packing and the entire pack is wrapped in polythene. The number of panels in each pack depends on panel length, width and weight and thickness. Typical pack height is 1200mm. Maximum pack weight 1500kg.
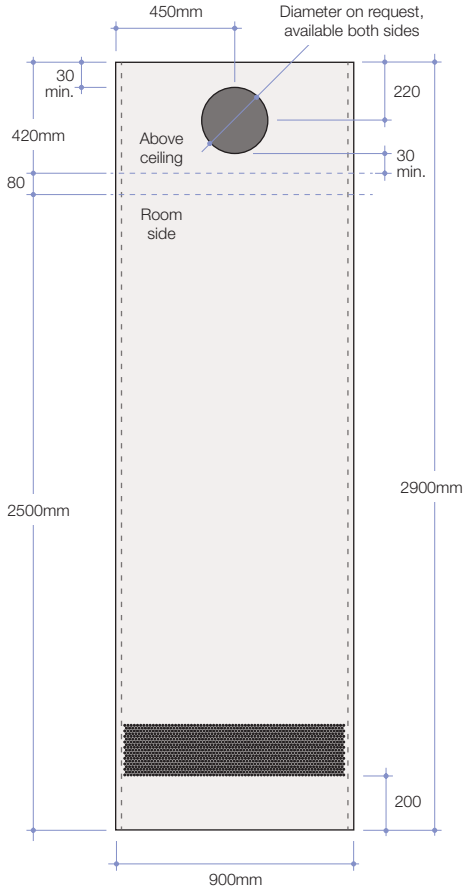
Sea Freight

Fully timber crated packs are available on projects requiring delivery by sea freight shipping, at additional cost. Alternatively, steel containers can be used. Special loading charges apply.
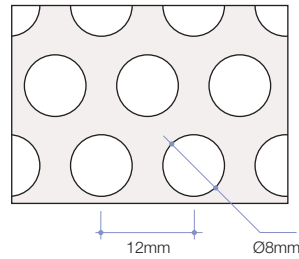
Delivery

All deliveries (unless indicated otherwise) are by road transport to project site. It is the clients responsibility to check the site for restrictions (i.e. entrance to site, power lines etc.) and agree a storage area to be used, also to identify the correct type/method of off-loading facilities to be used. Off-loading is the responsibility of the client.
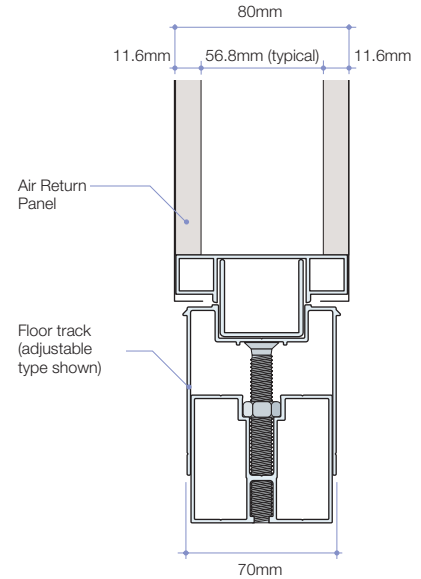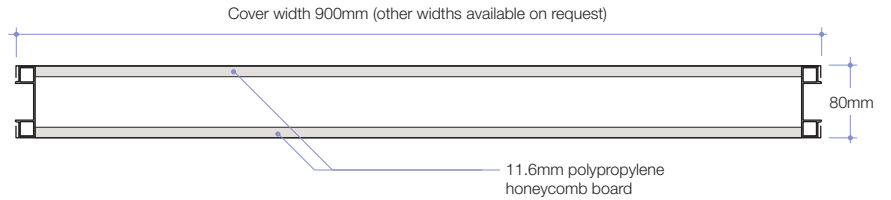
Kingspan
Insulated Panels

UltraTech Precision | Air Return Panel

Typical Technical Specification

450mm
Diameter on request, available both sides
30 min.
220
420mm
Above ceiling
80
30 min.
Room side
2900mm
2500mm
200
900mm

Typical Perforation Detail
(options available on request)

12mm
Ø8mm

Panel to Floor Track Detail

80mm
11.6mm   56.8mm (typical)   11.6mm
Air Return Panel
Floor track (adjustable type shown)
70mm

Air Panel Section

Cover width 900mm (other widths available on request)
80mm
11.6mm polypropylene honeycomb board

Typical Panel Perforation

900mm
848mm
200mm
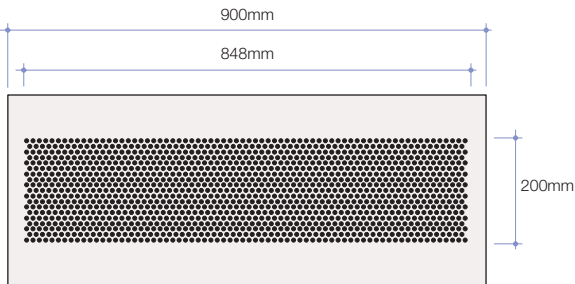
Perforation example: 200mm x 848mm area with holes of Ø8mm with perforation of 40% (1321 holes of Ø8mm = 66,400mm^2)

Panel Cut-out for Louvred Grille

900mm
848mm
140mm
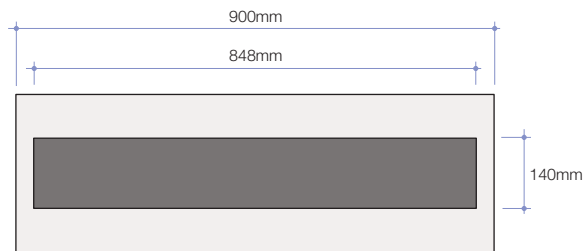
Cut outs available on request

Kingspan
Insulated Panels

UltraTech Precision

Technical Panel

Product Description

UltraTech Technical Panels are sealed modular, non-load-bearing wall panels designed to provide a maintenance accessible space within the cleanroom wall panel.

And allow for easy integration with the UltraTech Precision wall panel system.

Each panel is pre-fabricated and consists of two reinforced facings in 0.63mm thickness.The edges of the two skins are pressed to and bonded to the extruded aluminium frame to all sides creating a monobloc panel construction with smooth seamless edges.

UltraTech Technical Panels are supplied with a factory engineered demountable panel facing held to the panel frame by recessed magnets.

Application

UltraTech Technical Panels have been specifically designed for use within cleanroom environments where piping or cabling/wiring need to be accessible for maintenance.

Technical Data

Overall Thickness	80mm
Standard Widths	300, 600, 900 and 1200mm
Length	300-5700mm

Panel Joint

The panel joint has a unique self-supporting extruded aluminium frame to all sides. The panels are installed using a connection profile between each panel. The visible facing gaps between panels are sealed after installation.

Fire Performance

The steel outer and inner facings have Class 1 surface spread of flame to BS 476-7: 1997 (Fire tests on building materials and structures. Method of test to determine the classification of the surface spread of flame of products) and are Class 0, as defined by Building Regulations.

Quality

Kingspan cleanroom products are manufactured from the highest quality materials, using state of the art production equipment to rigorous quality control standards, approved to ISO 9001:2000, ensuring long-term reliability and long lifespan. Kingspan manufacturing plants are ISO 14001 (Environmental) and ISO 18001 (Health & Safety) accredited.

300-1200mm

300-5700mm

Size to customer specifiations

Kingspan
Insulated Panels

UltraTech Precision | Technical Panel

Substrate

Standard

- The UltraTech Technical Panels are manufactured from 0.63mm S220GD+ZA hot-dip zinc/aluminium coated steel to EN 10346: 2009.

- Metallic protected steel to BS EN 10346:2009.

Coating

Kingspan CLEAN*safe* 15

Kingspan CLEAN*safe* 15 is a basic polyester coating suitable for standard internal environments, providing reasonable chemical and humidity corrosion resistance.

- Polyester coating: 15µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: No

Kingspan CLEAN*safe* 25

Kingspan CLEAN*safe* 25 is a polyester coating suitable for moderately aggressive internal environments, providing good chemical and humidity corrosion resistance.

- Polyester coating: 25µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan CLEAN*safe* 55

Kingspan CLEAN*safe* 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.

- PET film: 55µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan HYGIENE*safe*

Kingspan HYGIENE*safe* is our unique chemically inert, anti-bacterial coating. A rigid polyvinylchloride (PVC) phthalate-free coating applied to pre-treated metal and suitable for humid and chemically aggressive internal environments.

- PVC Rigid film: 120µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan CLEAN*safe* 304 (316 available on request)

CLEAN*safe* 304 is cold rolled annealed austenitic stainless steel, suitable for corrosive internal environments.

- Mill finish stainless steel – grade 304

- Finish 2B

- Nominal thickness: 0.63mm

- Protection film: Yes (standard)

Colour Range

RAL 9010* and RAL 9002*

*Nearest match, samples available on request.

Other colours available on request.

Reinforcement (dependent on width)

UltraTech Technical panels are reinforced using 11.6mm polypropylene honeycomb board firmly bonded to the panel skins.

Frame

The frames are constructed from 2mm thick extruded 6063 aluminium alloy to form a frame to all sides. Each frame is cut to length using a computerized saw for a perfect mitred corner joints, forming a neat butt joint connection between each section.

Packing

Standard Packing

UltraTech Technical Panels are stacked horizontally with facing sheets upward. The top and bottom, sides and ends are protected with polystyrene and timber packing and the entire pack is wrapped in polythene. The number of panels in each pack depends on panel length, width and weight and thickness. Typical pack height is 1200mm. Maximum pack weight 1500kg.

Sea Freight

Fully timber crated packs are available on projects requiring delivery by sea freight shipping, at additional cost. Alternatively, steel containers can be used. Special loading charges apply.
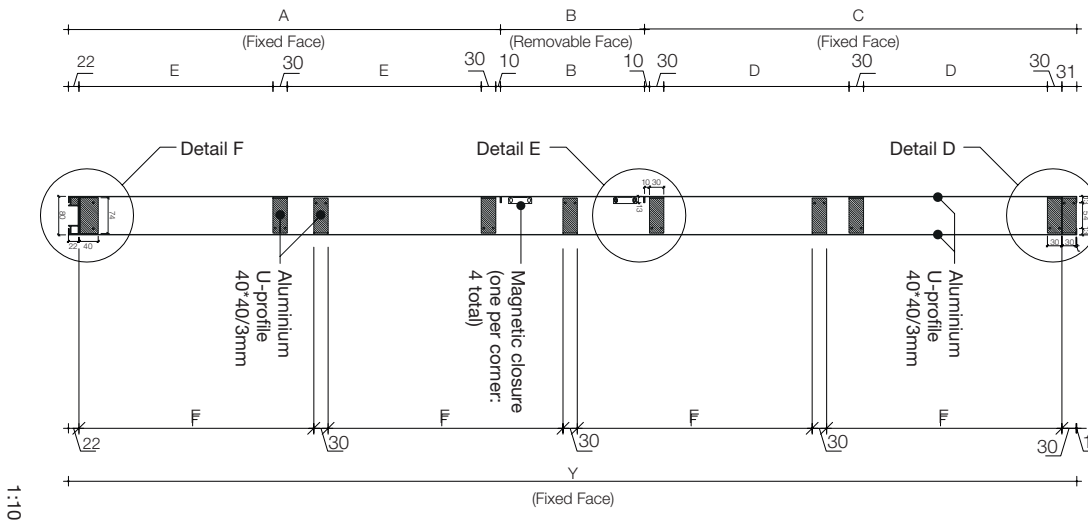
Delivery

All deliveries (unless indicated otherwise) are by road transport to project site. It is the clients responsibility to check the site for restrictions (i.e. entrance to site, power lines etc.) and agree a storage area to be used, also to identify the correct type/method of off-loading facilities to be used. Off-loading is the responsibility of the client.

UltraTech Precision

Typical Examples

Technical Panel : Front View

		A			B			C		
		(Fixed Face)			(Removable Face)			(Fixed Face)		
22	E	30	E	30	10	B	10	30	D	30	D	30	31

Labels (left to right):
- Aluminium L-angle 40*40/3mm
- 0.63mm Steel sheet
- Aluminium U-profile 30/3mm
- Magnetic closure (one per corner: 4 total)
- 0.63mm Steel sheet
- Aluminium U-profile 30/3mm
- 0.63mm Steel sheet
- Aluminium U-profile 30/3mm
- Precision panel profile on all four sides

Cross-section X-X

		A			B			C		
		(Fixed Face)			(Removable Face)			(Fixed Face)		
22	E	30	E	30	10	B	10	30	D	30	D	30	31

Detail F   Detail E   Detail D

Labels:
- Aluminium U-profile 40*40/3mm
- Magnetic closure (one per corner: 4 total)
- Aluminium U-profile 40*40/3mm

| 22 | F | 30 | F | 30 | F | 30 | F | 30 | 1 |

Y
(Fixed Face)

1:10

UltraTech Precision

Wall Panel Options

UltraTech Precision Pre-formed Corner Panels

Pre-formed corner panels provide a flush finished external corner detail (no flashing required). Pre-formed corner panels finished on 2 sides maximum width 1000mm. Preformed corner panels finished on 1 side maximum width 1200mm. Available in lengths up to 3.4m

Pre-formed corner finished on two sides

UltraTech Precision pre-formed corner panel

UltraTech Precision wall panel

UltraTech Precision wall panel

Pre-formed corner finished on one side

UltraTech Precision corner panel

UltraTech Precision wall panel

UltraTech Precision corner panel

Silicone seal

Silicone seal

UltraTech Precision wall panel
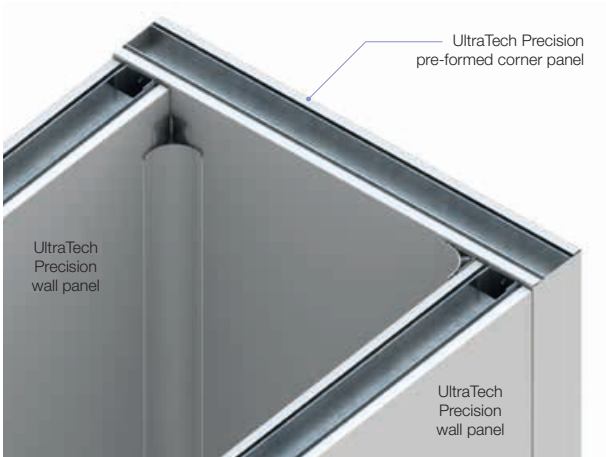
UltraTech Precision Integrated Conduits

25mm diameter rigid UPVC conduits placed at 260mm from panel ends.

260mm

Ø25mm
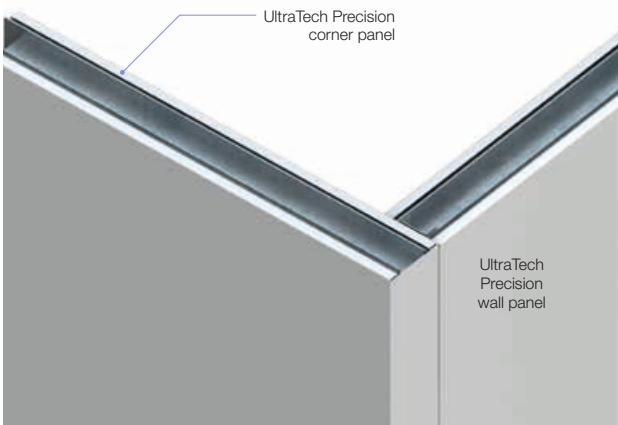
25mm integrated conduit options

3rd conduit available on request for 1200mm panel only

1200mm

80mm

260mm   680mm   260mm

900mm

80mm

260mm   380mm   260mm

600mm

80mm

260mm   340mm

Kingspan
Insulated Panels
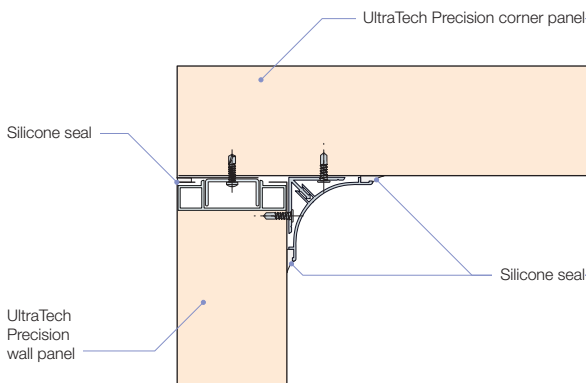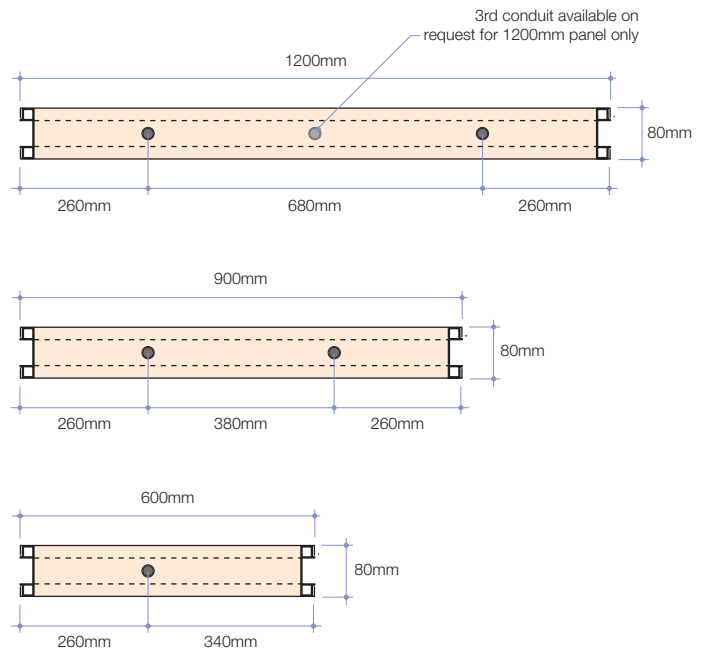
UltraTech Precision

Application

Extruded aluminium (6060 T5) 2-way and 3-way corner profiles have been specifically designed to provide a flush interface at corner junctions with both UltraTech Versatile or Precision panels. They provide improved aesthetics and are easy to clean in accordance with ISO 11998.

2-Way Profile (UltraTech Precision shown)

Part Reference	Weight
Extruded 3mm aluminium 2-way profile 150x150x80	3.8 kg/m
Folded aluminium angle bracket 50x50x3mm	32g each

Available Lengths

Standard lengths: 3-4 metres. Specific lengths available on request.

2-Way Profile Connection to Flooring Profile

Wall Corner Profiles

The profiles are available in powder coated RAL 9010 or RAL 9002 finish as standard, with an optional anti-bacterial HYGIENE*safe* coating to match panel finish.

3-Way Profile (UltraTech Versatile shown)

Part Reference	Weight
Extruded 3mm aluminium 3-way profile 80x150x200mm	4.9 kg/m
Folded aluminium angle bracket 50x50x3mm	32g each

Available Lengths

Standard lengths: 3-4 metres. Specific lengths available on request.

3-Way Profile Connection to Flooring Profile

Kingspan®
Insulated Panels

UltraTech | Service Conduit

Application

Extruded aluminium (6060 T5) service conduit is used to provide a flush interface between UltraTech wall panels where a service cavity is required. It offers improved aesthetics and ease of cleaning in accordance with ISO 11998.

The profile is available in powder coated RAL 9002 or RAL 9010 finish as standard, with an optional anti-bacterial HYGIENE*safe* coating.

Part Reference	Weight
3mm thick Service Conduit profile 80x200mm	4.13kg/m
Interface Profile with Flush panel - female joint	1.01kg/m
Interface Profile with Flush panel - male joint	0.92kg/m

Available Lengths
3 and 4 metres for horizontal applications. Specific lengths available on request for vertical applications.
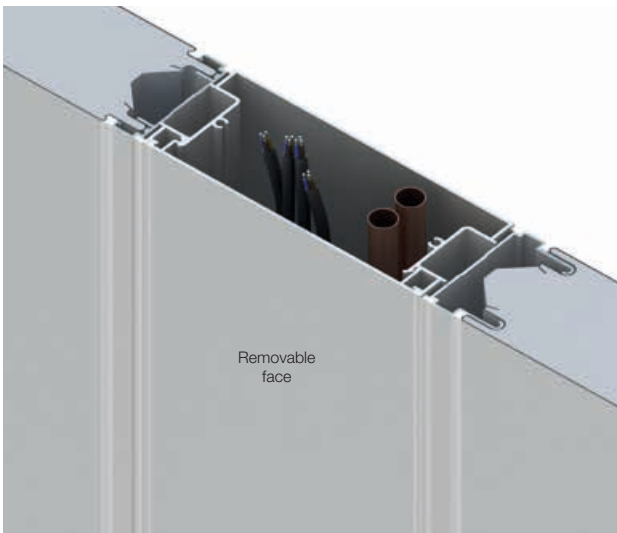
200mm   80mm

Vertical Application (UltraTech Versatile shown)

Removable face

Horizontal Application (UltraTech Precision shown)

Removable face

Stiffener plate for horizontal applications

Service Conduit Connection to Flooring Profile

UltraTech | Electrical Raceway

Application

Extruded Aluminium electrical raceway conduit is used to provide a flush interface between the UltraTech Precision and/or Versatile wall panels and an electrical services.

The electrical raceway is compatible with the Legrand Mosaic 45 (or similar) range of sockets (European, UK or US), switches, RJ45 or USB sockets, LEDs, and much more. Note those electrical accessories are not provided by Kingspan. The electrical raceway offers improved aesthetics and ease of cleaning in accordance with ISO 11998.

The profile is available in powder coated options RAL9002 or RAL9010 finish as standard, with an optional anti-bacterial HYGIENE*safe* coating (that can be married with Legrand Mosaic 45 anti-bacterial range).

Part Reference	Weight
precraceway	2.5kg/lm
precracewaycap	0.36kg/lm

Available Lengths
Standard lengths: 3 and 4 metres. Specific lengths available on request.

100mm   80mm   45mm

Vertical Application (UltraTech Versatile shown)

Horizontal Application (UltraTech Precision shown)

Stiffener plate for horizontal applications

Service Conduit Connection to Flooring Profile

Kingspan
Insulated Panels

UltraTech

Adjustable Flooring Profile

Application

The UltraTech adjustable aluminium flooring profile has been engineered to provide a fully flush wall panel to floor detail.

The profile is suitable for both vinyl and epoxy floor finishes. The unique feature of the profile also allows for a silicone seal finish between the wall panels and floor finishes.

Additionally, the floor profile has been engineered to provide adjustment from 100mm to 130mm. The top profile is pre-punched with slots for levelling adjustment and these slots provide access to the M10 adjustment jacks.

The recessed top section of the flooring profile provides additional space for cables / services (40 x 40mm).

The engineered design allows for a fully demountable cleanroom wall panel system that does not compromise room integrity and finish.

Part Reference	Weight
Aluminium adjustable flooring profile	2.75 kg/m

Available Lengths
Standard length: 6.0 metres.

Panel to Adjustable Flooring Detail

UltraTech Precision wall panel

Floor track (adjustable type shown)

UltraTech

Polyester Flooring Profile

100mm

72mm
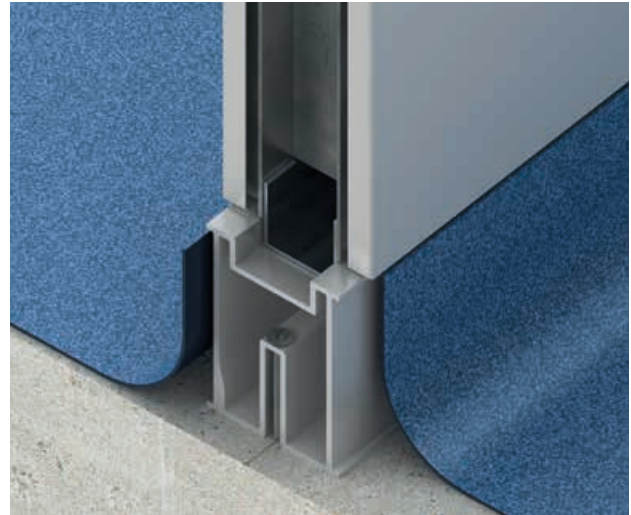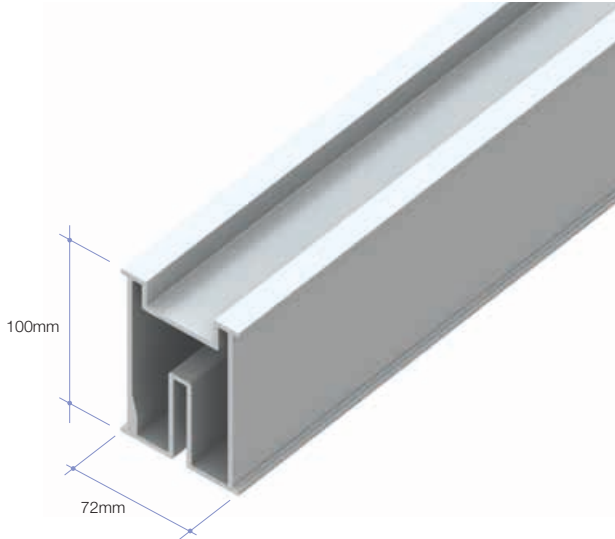
Application

Fibre reinforced polyester profiles have been specifically selected to be used with the UltraTech wall panel system.

This floor profile is non-adjustable and is normally installed recessed (4mm each side) from the wall panel facings in order to allow for a perfect connection finish between the UltraTech wall panel system and the vinyl or epoxy flooring.

Part Reference	Weight
Polyester non-adjustable flooring profile	3.8 kg/m

Available Lengths

Standard length: 6.0 metres

Panel to Polyester Flooring Detail

80mm

UltraTech Precision wall panel

Floor track (Polyester type shown)

72mm

Kingspan
Insulated Panels

UltraTech
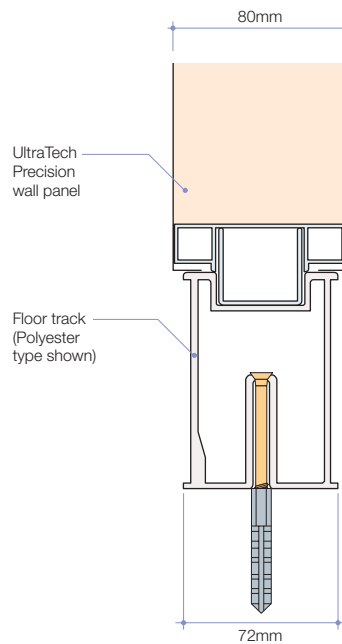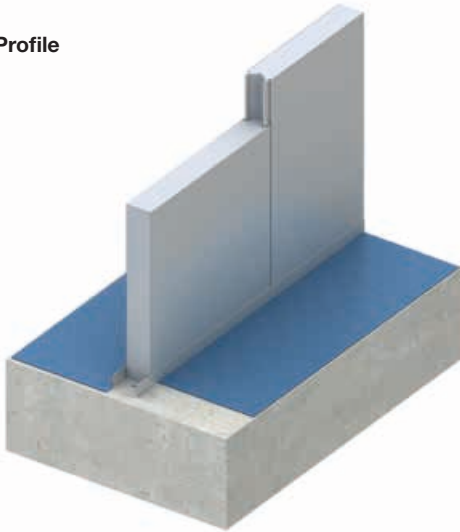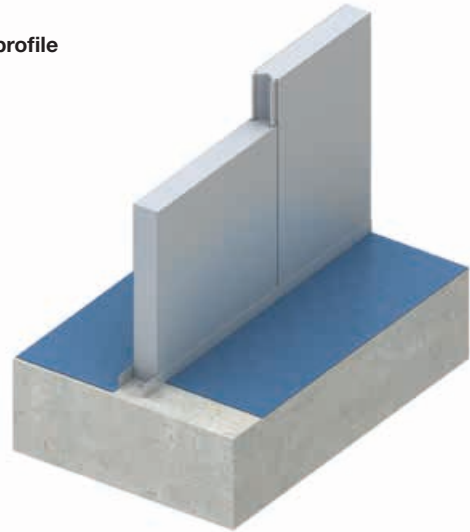
Steel U-Profile

| Steel U-Profile	Specification
Thickness	1.5mm
Standard Dimensions	40x81x40mm*
Max Length	3m
Material	Galvanised
Finish	Powder coated
Colour	RAL 9010 or RAL 9002
Fixing	Fixed directly to floor with hammer fixing Ø8*54mm

* Project specific dimensions available on request.

40mm

81mm

PVC U-profile

PVC U-Profile	Specification
Thickness	2.5mm
Standard Dimensions	30x80x30mm*
Max Length	4m
Material	Extruded PVC
Finish	Pre-finished
Colour	RAL 9010 or RAL 9002
Fixing	Fixed directly to floor with hammer fixing Ø8*54mm

* Project specific dimensions available on request.

30mm

80mm

Kingspan
Insulated Panels

UltraTech

Floor Connection Profiles
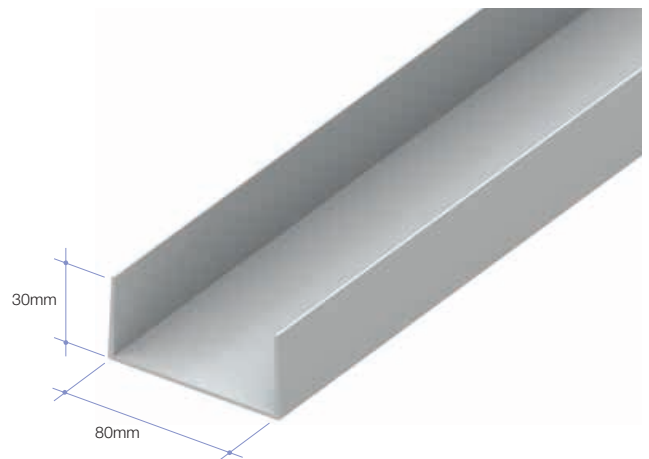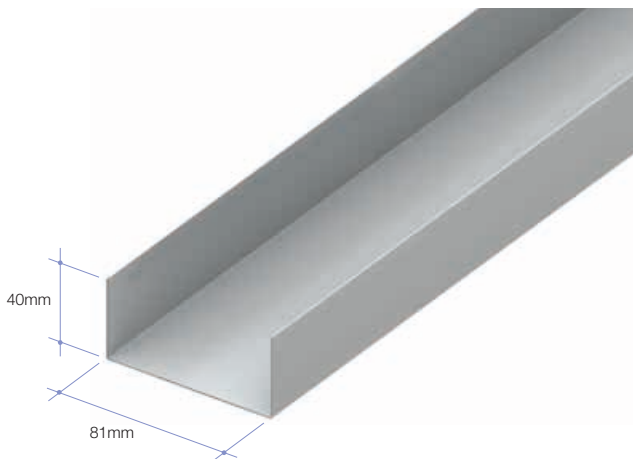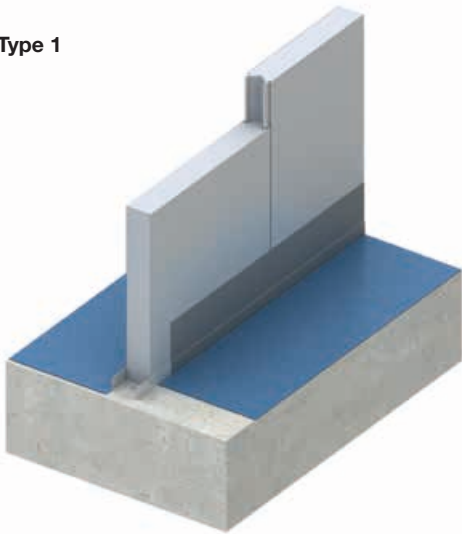
Skirting Type 1

Skirting Type 1	Specification
Thickness	3mm
Standard Dimensions	150 x 3mm
Max Length	4m
Material	Grey PVC
Finish	Pre-finished
Colour	RAL9035
Fixing	Adhesive fixed

150mm

3mm
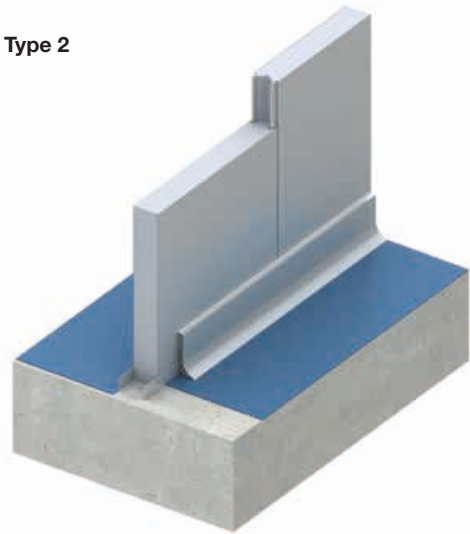
Skirting Type 2

Skirting Type 2	Specification
Thickness	45mm
Standard Dimensions	10 x 45mm
Max Length	4m
Material	White PVC
Finish	Pre-finished
Colour	RAL9010
Fixing	Secret screw fixing

Additional accessories for internal / external corners and stopends are available.

100mm

45mm

Kingspan
Insulated Panels

UltraTech

Semi-Flush Profiles
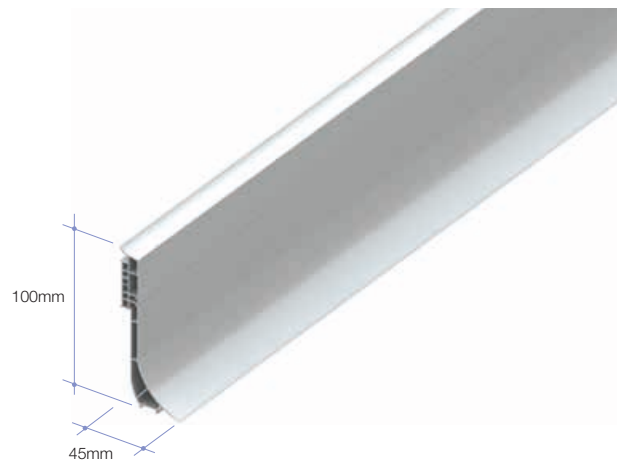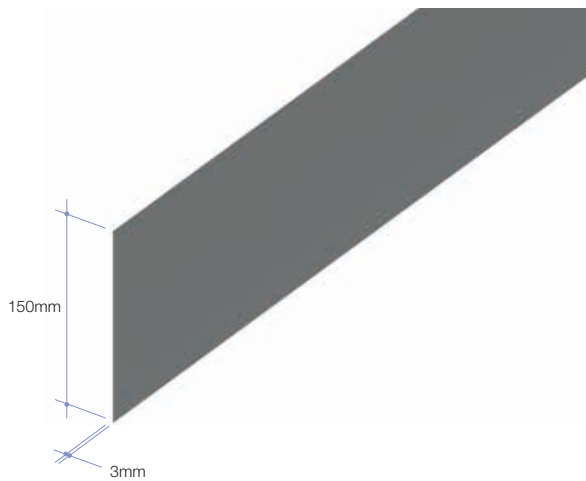
Aluminium Coving Profiles

Available in both 40 and 45mm radius options, powder coated aluminium alloy internal corner coving profiles allow for a silicone seal finish. Aluminium pre-coving is screw fixed to the cleanroom ceiling and wall panels. The powder coated finished coving is clipped Into the pre-coving for a silicone seal finish.

Coving profiles interface with internal 3 way corner profile and are available in powder coated RAL 9010 or RAL 9002 finish, with an optional anti-bacterial HYGIENE*safe* coating.

Installation

Corner caps are fixed to the ceiling panels with self-tapping screws.

Part Reference	Weight
40mm radius aluminium coving	1.13 kg/m
Internal corner to suit 40mm radius aluminium coving	51g each
45mm radius aluminium coving	0.61 kg/m
Internal corner to suit 45mm radius aluminium coving	115g each

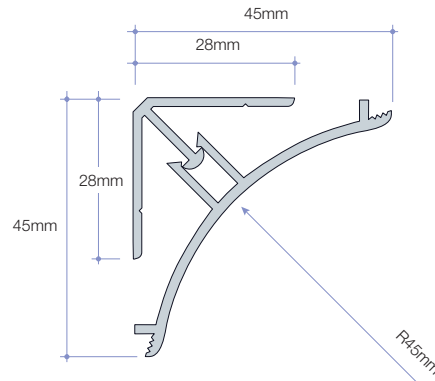**Aluminium Internal Corner Coving**

Available Lengths
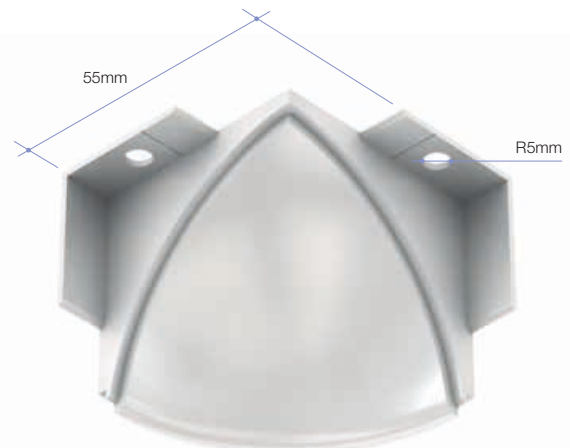Standard length: 4.0 metres.

40mm Radius Aluminium Coving
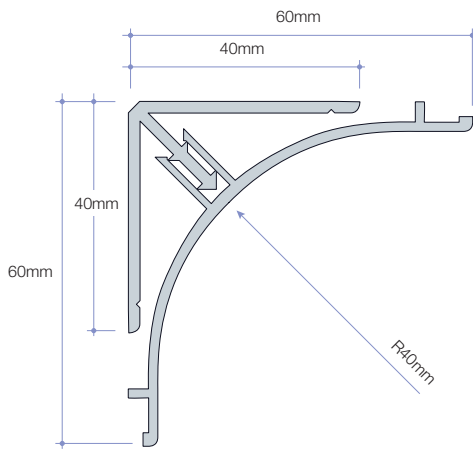
45mm Radius Aluminium Coving

40mm Radius Aluminium Internal Corner

45mm Radius Aluminium Internal Corner

![Kingspan Insulated Panels]

UltraTech

Semi-Flush Profiles

PVC Coving Profile

PVC internal corner coving has been designed to be fixed to a 3-way corner profile and to interface with a 55mm radius PVC or 45mm radius aluminium coving profiles.

PVC covings have soft edges at the wall panel junction and are available in RAL 9010 or RAL 9002 finish.
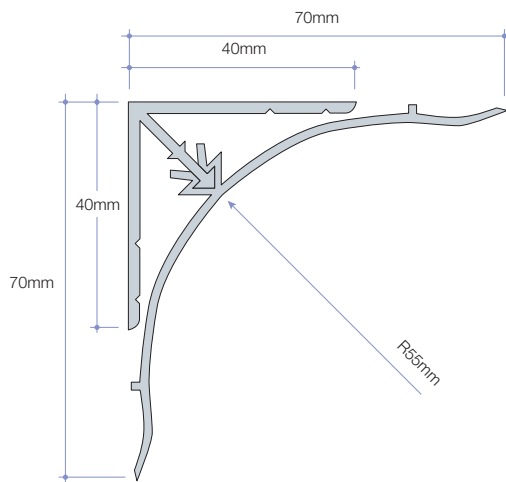
Installation

Corner caps are fixed to the ceiling panels with self-tapping screws. PVC covings cannot be sealed to panels.

Part Reference	Weight
55mm radius PVC coving profile	0.67 kg/m
Internal corner to suit 55mm radius PVC coving	275g each

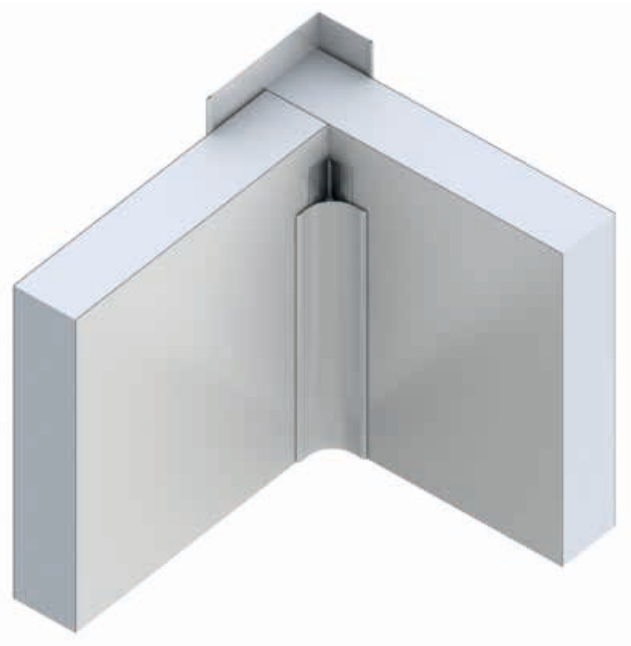**Available Lengths**
Standard length: 4.0 metres.

PVC Internal Corner Coving

55mm Radius PVC Coving

55mm Radius PVC Internal Corner

PVC Internal Corner Detail

Kingspan
Insulated Panels
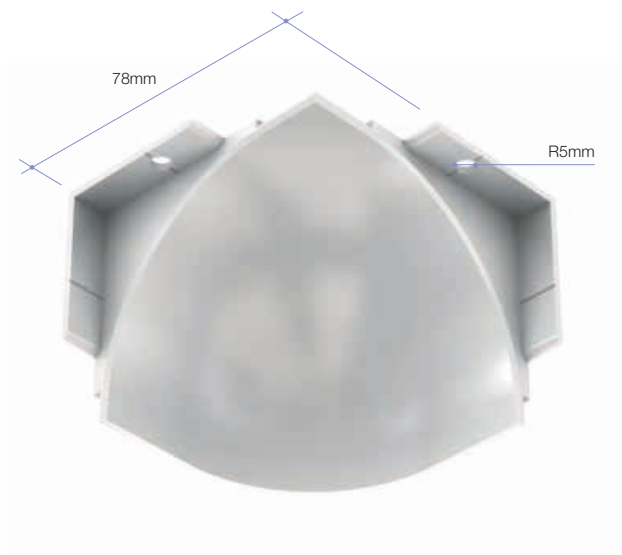
UltraTech

Flush Window

Application

UltraTech Flush Windows are designed as 80mm fully flush mounted glazed units for the UltraTech Precision panel systems.

The glazing units consist of an aluminium frame and two panes of 6mm laminated glass, which are glued and siliconed on both sides to the frame.

The aluminium frame is available in RAL 9002 or RAL 9010 colours as standard.

The bottom of the aluminium frame is supplied with moisture-absorbing silica-gel granules in order to keep the glazing unit cavity moisture-free.

Technical Details

Type	Internal flush window
	6mm laminated glass
Thickness	80mm (± 1.0mm)
Module	300mm in length and width
Width Range	300-1500mm
Height Range	300-2400mm
Options	Tempered glass
	Blinds*
	Stainless steel
	Protective UV film**

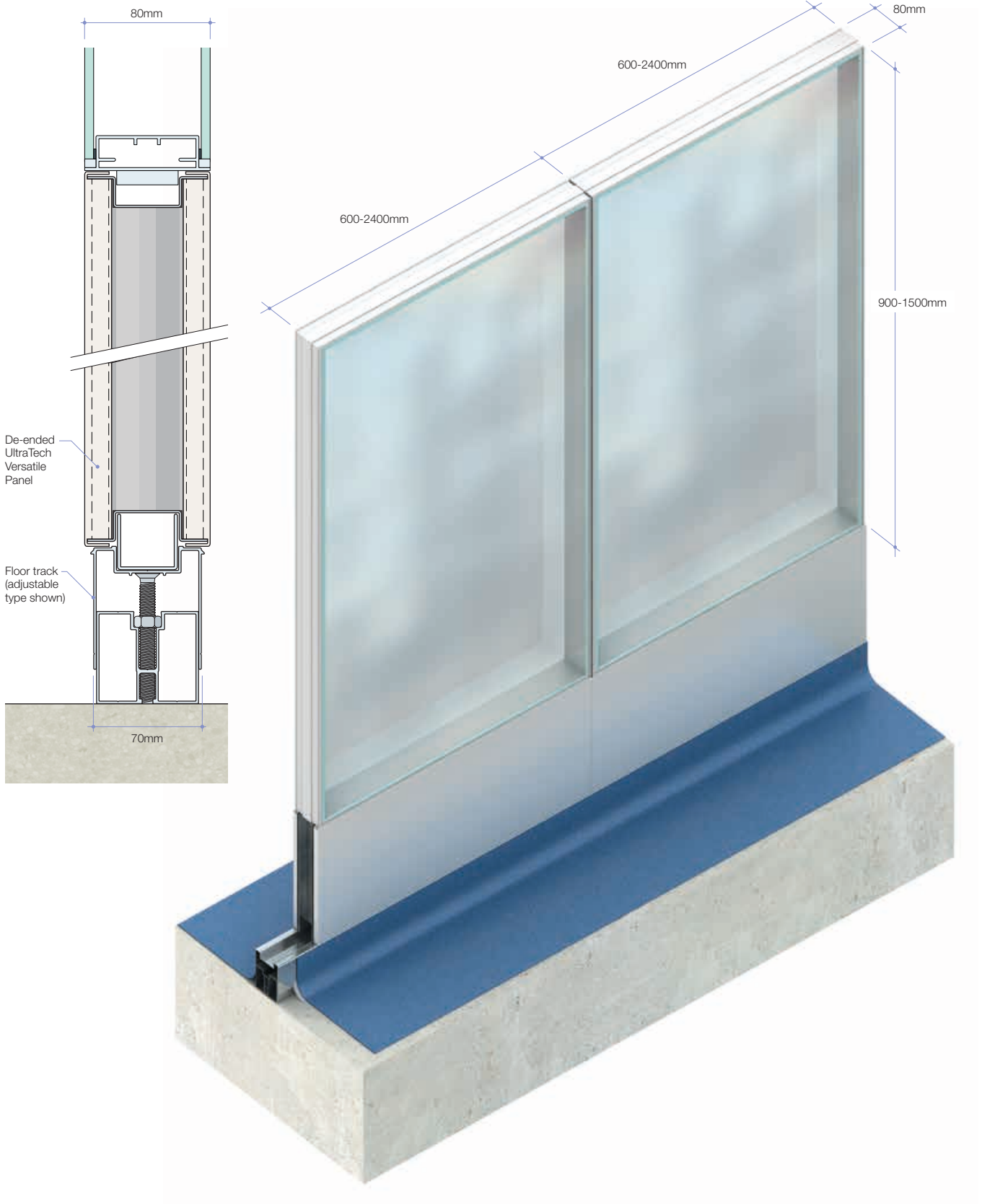* Please refer to colour chart.
**Range of UV films available.
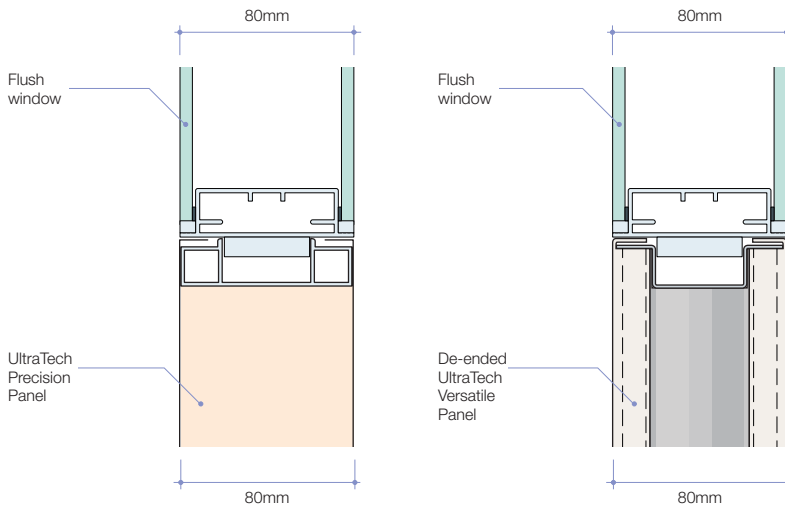
UltraTech 80mm Flush Windows

Width	Height (mm)								
(mm)	300	600	900	1000	1200	1500	1800	2100	2400
300	3.7kg	6.9kg	10.1kg	11.2kg	13.3kg	16.5kg	19.7kg	22.9kg	26.1kg
600	-	12.8kg	18.7kg	20.7kg	24.6kg	30.5kg	36.4kg	42.3kg	48.2kg
900	-	-	27.3kg	30.2kg	35.9kg	44.5kg	53.1kg	61.7kg	70.3kg
1000	-	-	-	33.4kg	39.7kg	49.2kg	58.7kg	68.2kg	77.7kg
1200	-	-	-	-	47.2kg	58.5kg	69.8kg	81.1kg	92.4kg
1500	-	-	-	-	-	72.5kg	86.5kg	-	-

Weights do not include packaging.

UltraTech

Flush Window

80mm

De-ended UltraTech Versatile Panel

Floor track (adjustable type shown)

70mm

80mm

600-2400mm

600-2400mm

900-1500mm

Kingspan
Insulated Panels

UltraTech

Semi-Flush Window

Application

UltraTech Semi-Flush Windows windows are designed as semi-flush mounted glazed frame for 60, 80 or 100mm Versatile panel systems.

The glazing units consist of 2 aluminium frames (frame and counterframe) on which 6mm laminated glass is glued and siliconed on both sides.

The aluminium frame is available in RAL 9002 or RAL 9010 colours as standard.

The bottom of the aluminium frame is supplied with moisture-absorbing silica-gel granules in order to keep the glazing unit cavity moisture-free.

Technical Details

Type	Internal semi-flush window
	6mm laminated glass
Thickness***	60, 80, and 100mm (± 1.0mm)
Module	300mm in length and width
Width Range	300-1500mm
Height Range	300-2400mm
Options	Tempered glass
	Blinds*
	Stainless steel
	Protective UV film**

* Please refer to colour chart.
** Range of UV films available.
***Special frame thicknesses available on request.

60-100mm

600-2400mm

900-1500mm

Semi-flush window

UltraTech Versatile Panel

80mm
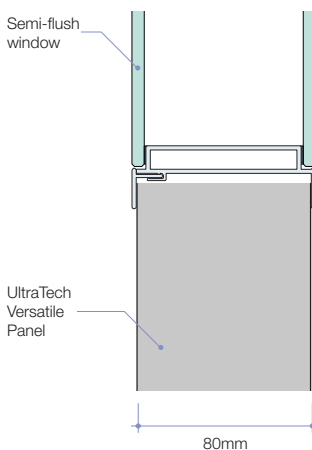
UltraTech 60mm Semi-Flush Windows

Width (mm)	Height (mm)								
	300	600	900	1000	1200	1500	1800	2100	2400
300	4.0kg	7.3kg	10.6kg	11.8kg	14.0kg	17.3kg	20.7kg	24.0kg	27.3kg
600	-	13.3kg	19.4kg	21.4kg	25.4kg	31.5kg	37.5kg	43.5kg	49.6kg
900	-	-	28.1kg	31.0kg	36.9kg	45.6kg	54.3kg	63.1kg	71.8kg
1000	-	-	-	34.2kg	40.7kg	50.3kg	59.9kg	69.6kg	79.2kg
1200	-	-	-	-	48.3kg	59.7kg	71.2kg	82.6kg	94.0kg
1500	-	-	-	-	-	73.9kg	88.0kg	-	-

UltraTech 80mm Semi-Flush Windows

Width (mm)	Height (mm)								
	300	600	900	1000	1200	1500	1800	2100	2400
300	4.2kg	7.7kg	11.2kg	12.3kg	14.6kg	18.1kg	21.6kg	25.0kg	28.5kg
600	-	13.9kg	20.2kg	22.1kg	26.2kg	32.4kg	38.5kg	44.7kg	50.9kg
900	-	-	28.9kg	31.8kg	37.8kg	46.6kg	55.5kg	64.4kg	73.2kg
1000	-	-	-	35.1kg	41.6kg	51.4kg	61.1kg	70.9kg	80.7kg
1200	-	-	-	-	49.3kg	60.9kg	72.5kg	84.0kg	95.6kg
1500	-	-	-	-	-	75.2kg	89.4kg	-	-

UltraTech 100mm Semi-Flush Windows

Width (mm)	Height (mm)								
	300	600	900	1000	1200	1500	1800	2100	2400
300	4.5kg	8.1kg	11.7kg	12.9kg	15.3kg	18.9kg	22.5kg	26.1kg	29.7kg
600	-	14.4kg	20.7kg	22.8kg	27.0kg	33.3kg	39.6kg	45.9kg	52.2kg
900	-	-	29.7kg	32.7kg	38.7kg	47.7kg	56.7kg	65.7kg	74.6kg
1000	-	-	-	36.0kg	42.6kg	52.5kg	62.4kg	72.3kg	82.1kg
1200	-	-	-	-	50.4kg	62.1kg	73.8kg	85.4kg	97.1kg
1500	-	-	-	-	-	76.5kg	90.8kg	-	-

Weights do not include packaging.
Height and Width refer to the window order dimensions.
Cut out dimensions are the order dimensions +10mm.
Overall frame dimensions are the order dimensions +32mm.
Please contact Kingspan Technical.

UltraTech

Emergency Escape Panels

Application

Emergency Escape Panels provide a quick and simple means of escape for personnel from a cleanroom environment in the event of an emergency. Emergency Escape Panels are sealed and provide a flush or semi-flush, easy clean surface to the cleanroom facility.

Specification

The Emergency Escape Panel assembly consists of two parts - frame and glazing.

Frames

Depending on the frame profile used, a Emergency Escape Panel can be applied to different wall thicknesses.

Glazing

Emergency Escape Panels are supplied with single tempered glazing as standard for both semi-flush and flush applications. Double-glazed units are available on request.

Standard Equipment

Emergency Escape Panels are supplied with a window hammer tool, fixing bracket, instructions and self-adhesive 'Emergency Exit' label.

Options

Emergency Escape Panels can be supplied featuring a stainless steel frame and/or sand blasted glazing. Alternative window breaking tools can be supplied. Cut out dimensions are the order dimension +10mm.

Flush Emergency Escape Panel
(single glazing shown)

80mm

1000mm
(typical)

2200mm
(typical)

Kingspan®
Insulated Panels

Semi-Flush Emergency Escape Panel
(single glazing shown)

80mm

1000mm
(typical)

2200mm
(typical)

Kingspan
Insulated Panels

UltraTech

Flush
Single Door Leaf

Technical Details

Type: Flush single door leaf and frame.

Core: ECO*safe* PIR / MF Core.

Thickness: 80 mm (Tol. ± 1,0 mm) doorleaf.

Door openings:
Height: 2133mm (clear internal height) for frame height of 2200mm
Width: 1067mm (clear internal width) for a frame width of 1200mm
Other sizes available on request.

Door hardware: Stainless steel hinges; stainless steel door handle; stainless steel pull handle; door lock with keys; and recessed drop-seal.

Coating

Kingspan CLEAN*safe* 15

Kingspan CLEAN*safe* 15 is a basic polyester coating suitable for standard internal environments, providing reasonable chemical and humidity corrosion resistance.

- Polyester coating: 15µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: No

Kingspan CLEAN*safe* 25

Kingspan CLEAN*safe* 25 is a polyester coating suitable for moderately aggressive internal environments, providing good chemical and humidity corrosion resistance.

- Polyester coating: 25µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan CLEAN*safe* 55

Kingspan CLEAN*safe* 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.

- PET film: 55µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

Kingspan HYGIENE*safe*

Kingspan HYGIENE*safe* is our unique chemically inert, anti-bacterial coating. A rigid polyvinylchloride (PVC) phthalate-free coating applied to pre-treated metal and suitable for humid and chemically aggressive internal environments.

- PVC Rigid film: 120µm

- Nominal thickness: 0.63mm (incl. coating)

- Protection film: Yes (standard)

1200mm

2200mm

Kingspan
Insulated Panels

UltraTech

Flush
Single Door Leaf

Kingspan CLEAN*safe* 304 (316 available on request)

CLEAN*safe* 304 is cold rolled annealed austenitic stainless steel, suitable for corrosive internal environments.

- Mill finish stainless steel – grade 304
- Finish 2B
- Nominal thickness: 0.63mm
- Protection film: Yes (standard)

Colour Range

RAL9010, RAL9002.
Other colour options are available on request.

Product Data

Door Leaf

The UltraTech hinged door leafs are constructed from two facings 0.63mm thick hot-dip zinc coated metal to EN 10147, folded to form a 80mm thick door leaf. The edges of the two skins are pressed to create a monobloc cassette construction with smooth folded edges.

The UltraTech hinged door features an environmentally-sustainable closed cell ECO*safe* PIR insulation core which is non-deleterious with Zero Ozone Depletion Potential (Zero ODP).

Frame

The UltraTech hinged door frames are constructed from 6mm thick extruded 6063 aluminium alloy. Each frame is cut to length using a computerized saw for a perfect mitred corner joint, to form a neat butt joint connection between jambs and heads. The door frames are Polyester powder coated, colour to match face of door leaf unless stated otherwise.

Gaskets

The UltraTech hinged door frame incorporates a smooth, continuous uPVC gasket fitted to the internal rebate of the frame for ease of maintenance and to ensure that the door leaf seals to the frame.

The UltraTech hinged door leafs incorporates a recessed drop-seal (optional) which automatically lowers upon closing to ensure an airtight seal between the bottom of the door and the flooring.

Hinges

Four recessed stainless steel lift-off hinges are provided.
The number of hinges is calculated based on the physical door leaf size, leaf weight and additional equipment fitted to the door.

Vision Panels

The UltraTech hinged door leafs are available with or without a flush vision panel. Each vision panel is constructed from two 6mm laminated safety glass. Standard size is 300 x 600mm, other sizes are available on request.
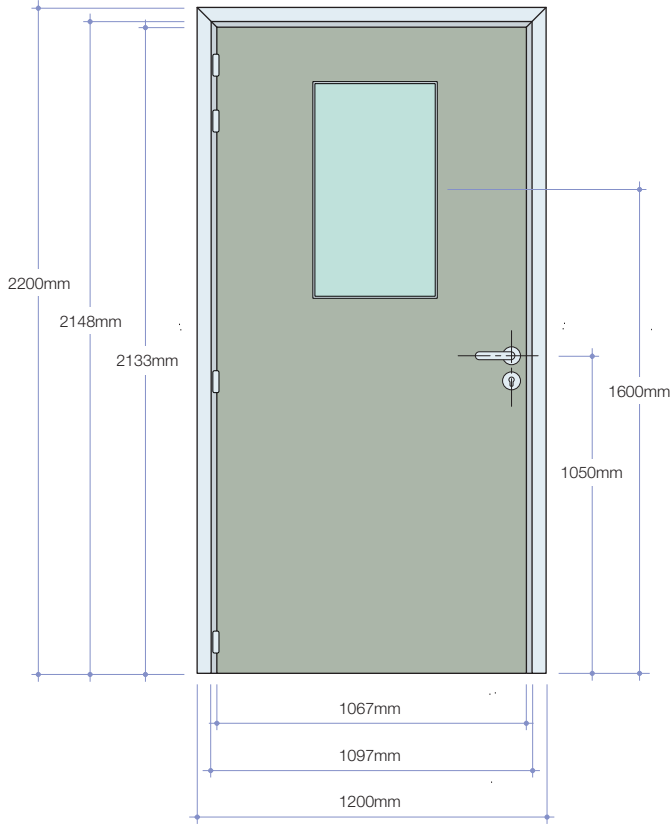
Available Options:

- Double-glazed Flush vision panel 300mm wide x 600mm high (6mm laminated glass), other sizes available on request
- Built in electromagnetic lock (24V)
- Electrical lock (24V)
- Sash lock / latch / night latch / deadlock / escape sashlock / roller bolt
- Flush or semi-flush stainless steel kick-plates
- PVC semi-flush kick-plates
- Stainless steel push-plate and pull handle
- Emergency door with panic bar
- Door stop
- Interlocking system
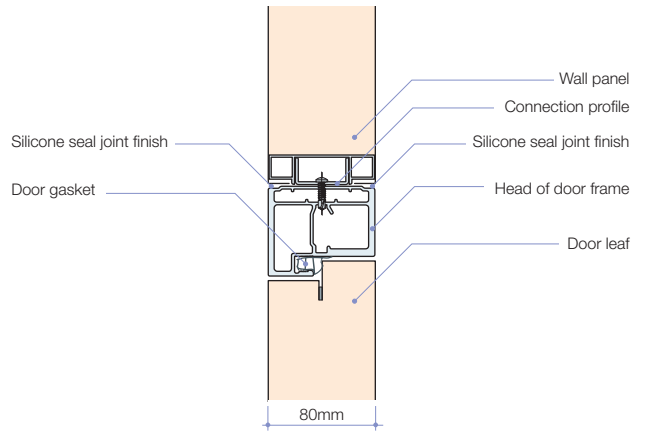- Door closer
- Recessed drop seal

Technical Performance:

- Air permeability according to EN 12426: Class 3
- Leakage at +50Pa positive pressure 3.2m³/h/m²
- Leakage at -50Pa negative pressure 4.1m³/h/m²
- Resistance to water penetration according to EN12425: Class 0
- Resistance to windload according to EN 12424: Class 4

Kingspan
Insulated Panels
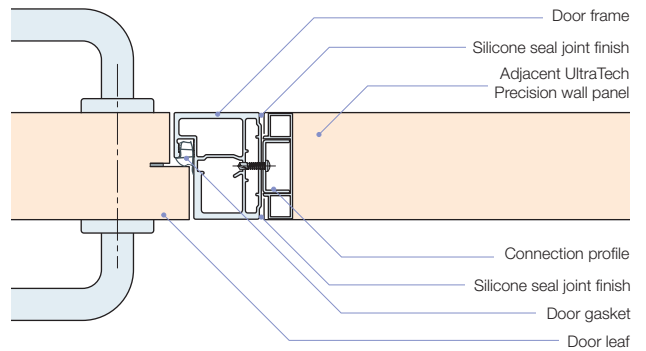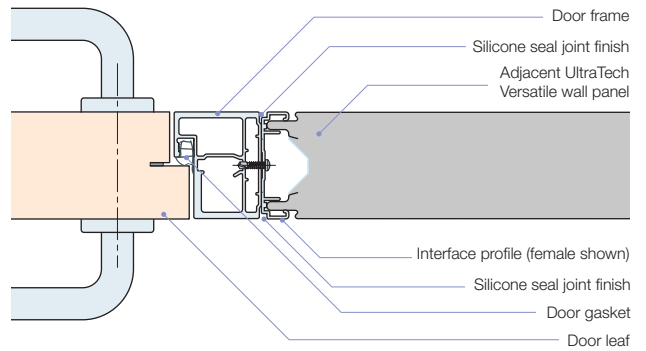
UltraTech

Flush
Single Door Leaf

Technical drawings

Door Elevation

2200mm
2148mm
2133mm

1600mm
1050mm

1067mm
1097mm
1200mm

Door Head Section

Wall panel
Connection profile
Silicone seal joint finish
Silicone seal joint finish
Door gasket
Head of door frame
Door leaf

80mm

Door Jamb - Precision Panel

Door frame
Silicone seal joint finish
Adjacent UltraTech
Precision wall panel

Connection profile
Silicone seal joint finish
Door gasket
Door leaf

Door Jamb - Versatile Panel
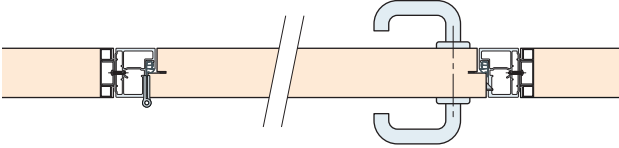
Door frame
Silicone seal joint finish
Adjacent UltraTech
Versatile wall panel

Interface profile (female shown)
Silicone seal joint finish
Door gasket
Door leaf

Kingspan
Insulated Panels

Single Door Leaf and Connecting Panels

Single Door Leaf with Flush Glazing (Vision Panel)

300 x 600mm

Single Door Leaf

Single Door Leaf with Flush Glazing (Vision Panel)

Recessed drop seal

Recessed drop seal

Kingspan
Insulated Panels

UltraTech
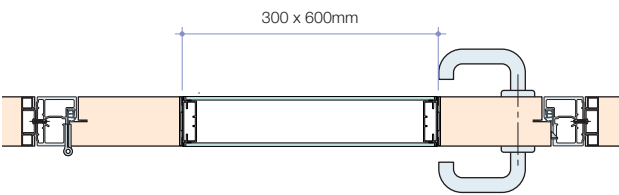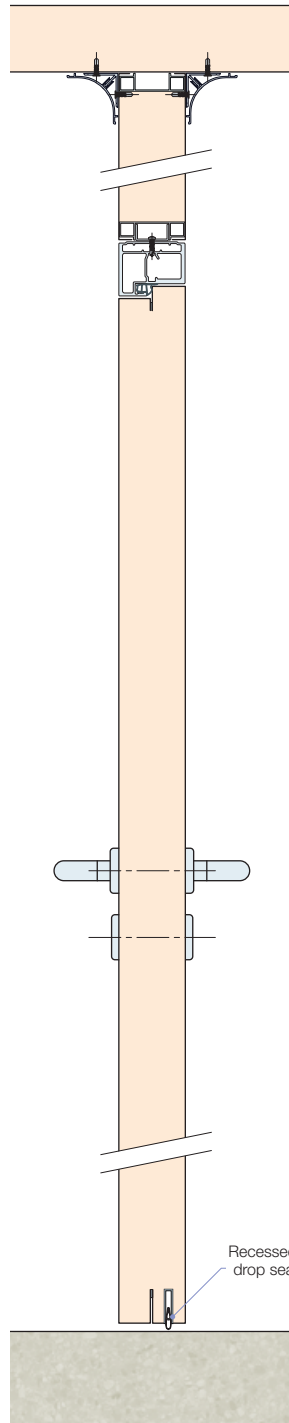
Flush
Double Door Leaf
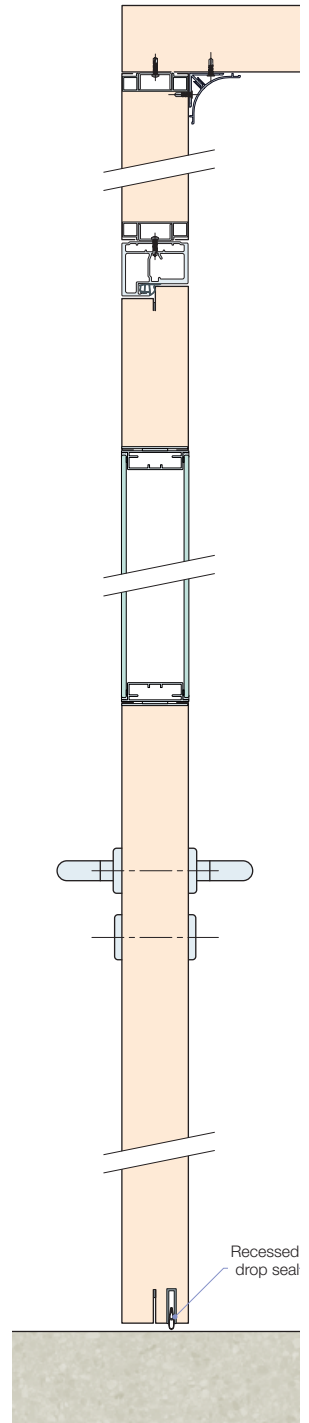
Technical Details

Type: Flush double door leaf and frame.

Core: ECO*safe* PIR / MF Core.

Thickness: 80 mm (Tol. ± 1,0 mm) doorleaf.

Door openings:

Height: 2133mm (clear internal height) for frame height of 2200mm
Widths:
1067+300mm (clear internal width) for a frame width of 1500mm,
1067+600mm (clear internal width) for a frame width of 1800mm,
1067+900mm (clear internal width) for a frame width of 2100mm

Other sizes available on request.

Door hardware: Stainless steel hinges; stainless steel door handle; stainless steel pull handle; door lock with keys; and recessed drop-seal.

Coating

Kingspan CLEAN*safe* 15
Kingspan CLEAN*safe* 15 is a basic polyester coating suitable for standard internal environments, providing reasonable chemical and humidity corrosion resistance.

- Polyester coating: 15µm
- Nominal thickness: 0.63mm (incl. coating)
- Protection film: No

Kingspan CLEAN*safe* 25
Kingspan CLEAN*safe* 25 is a polyester coating suitable for moderately aggressive internal environments, providing good chemical and humidity corrosion resistance.

- Polyester coating: 25µm
- Nominal thickness: 0.63mm (incl. coating)
- Protection film: Yes (standard)

Kingspan CLEAN*safe* 55
Kingspan CLEAN*safe* 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.

- PET film: 55µm
- Nominal thickness: 0.63mm (incl. coating)
- Protection film: Yes (standard)

Kingspan HYGIENE*safe*
Kingspan HYGIENE*safe* is our unique chemically inert, anti-bacterial coating. A rigid polyvinylchloride (PVC) phthalate-free coating applied to pre-treated metal and suitable for humid and chemically aggressive internal environments.

- PVC Rigid film: 120µm
- Nominal thickness: 0.63mm (incl. coating)
- Protection film: Yes (standard)

1800mm

2200mm

![Kingspan Insulated Panels logo]

UltraTech

Flush Double Door Leaf

Kingspan CLEAN*safe* 304 (316 available on request)
CLEAN*safe* 304 is cold rolled annealed austenitic stainless steel, suitable for corrosive internal environments.

- Mill finish stainless steel – grade 304
- Finish 2B
- Nominal thickness: 0.63mm
- Protection film: Yes (standard)

Colour Range

RAL9010 and RAL9002.
Other colour options are available on request.

Product Data

Door Leaf

The UltraTech hinged door leafs are constructed from two facings 0.63mm thick hot-dip zinc coated metal to EN 10147, folded to form a 80mm thick door leaf. The edges of the two skins are pressed to create a monobloc cassette construction with smooth folded edges.

The UltraTech hinged features an environmentally-sustainable closed cell ECO*safe* PIR insulation core which is non-deleterious with Zero Ozone Depletion Potential (Zero ODP).

Frame

The UltraTech hinged door frames are constructed from 6mm thick extruded 6063 aluminium alloy. Each frame is cut to length using a computerized saw for a perfect mitred corner joint, to form a neat butt joint connection between jambs and heads. The door frames are Polyester powder coated, colour to match face of door leaf unless stated otherwise.

Gaskets

The UltraTech hinged door frame incorporates a smooth, continuous uPVC gasket fitted to the internal rebate of the frame for ease of maintenance and to ensure that the door leaf seals to the frame.

The UltraTech hinged door leafs incorporates a recessed drop-seal (optional) which automatically lowers upon closing to ensure an airtight seal between the bottom of the door and the flooring.

Hinges

Four recessed stainless steel lift-off hinges are provided.
The number of hinges is calculated based on the physical door leaf size, leaf weight and additional equipment fitted to the door.

Vision Panels

The UltraTech hinged door leafs are available with or without a flush vision panel. Each vision panel is constructed from two 6mm laminated safety glass. Standard size is 300 x 600mm, other sizes are available on request.
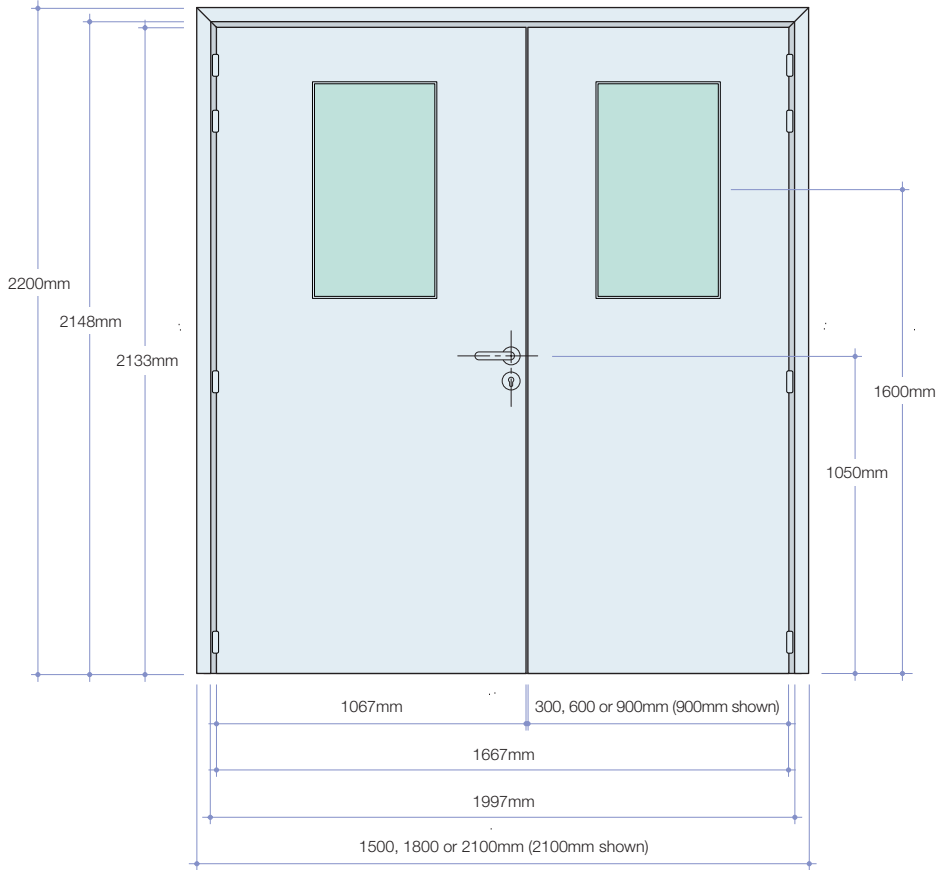
Available Options:

- Double-glazed Flush vision panel 300mm wide x 600mm high (6mm laminated glass), other sizes available on request
- Built in electromagnetic lock (24V)
- Electrical lock (24V)
- Sash lock / latch / night latch / deadlock / escape sashlock / roller bolt
- Flush or semi-flush stainless steel kick-plates
- PVC semi-flush kick-plates
- Stainless steel push-plate and pull handle
- Emergency door with panic bar
- Door stop
- Interlocking system
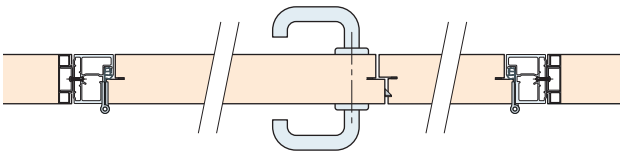- Door closer
- Recessed drop seal

Technical Performance:

- Air permeability according to EN 12426: Class 1
- Leakage at +50Pa positive pressure 13m³/h/m² (4.8m³/h/m)
- Leakage at -50Pa negative pressure 21m³/h/m² (7.3m³/h/m
- Resistance to water penetration according to EN12425: Class 0
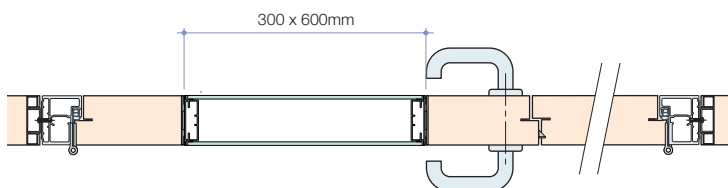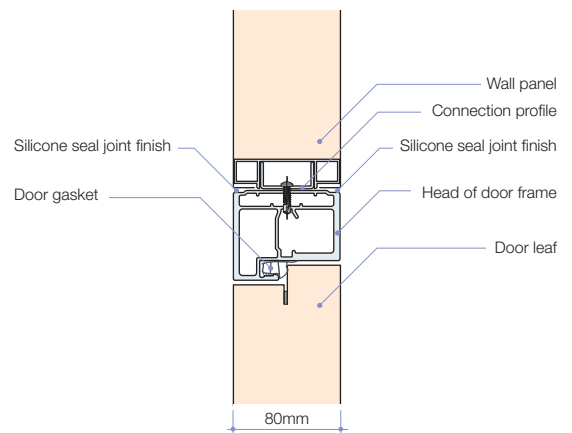- Resistance to windload according to EN 12424: Class 4

Kingspan
Insulated Panels

UltraTech

Flush
Double Door Leaf

Technical drawings

Door Elevation

2200mm
2148mm
2133mm

1600mm
1050mm

1067mm
300, 600 or 900mm (900mm shown)
1667mm
1997mm
1500, 1800 or 2100mm (2100mm shown)

Double Door Leaf and Connecting Panels

Double Door Leaf with Flush Glazing (Vision Panel)

300 x 600mm

Door Head Section

Wall panel
Connection profile
Silicone seal joint finish
Silicone seal joint finish
Head of door frame
Door gasket
Door leaf

80mm

Kingspan
Insulated Panels

UltraTech

Flush
Double Door Leaf

Double Door Leaf

**Double Door Leaf with
Flush Glazing (Vision Panel)**

Recessed
drop seal

Recessed
drop seal

Kingspan
Insulated Panels

UltraTech
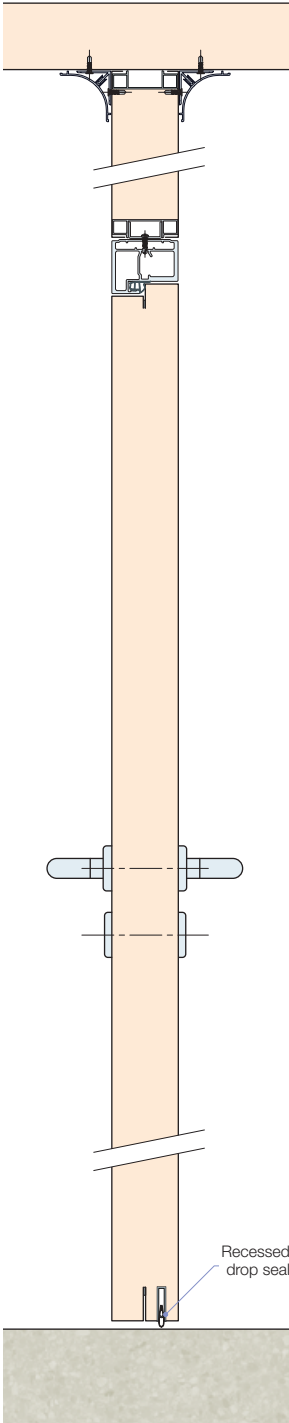
Semi-Flush Single Door Leaf
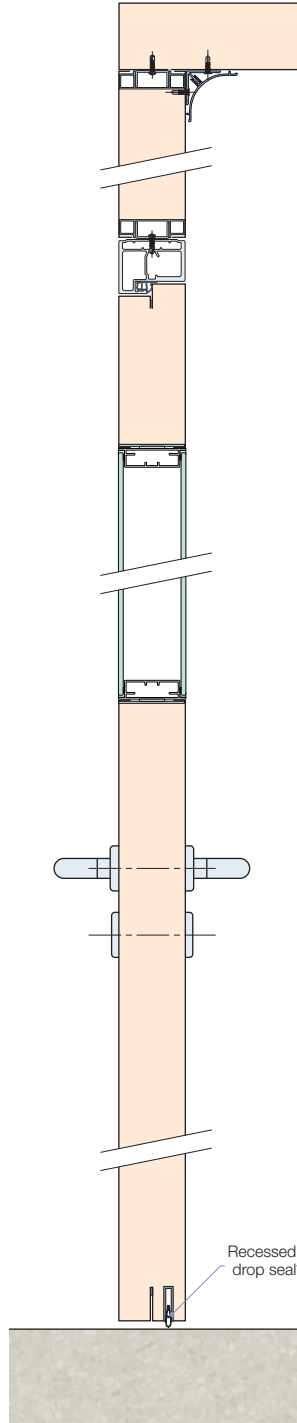
Technical Details

Type: Semi-Flush single door leaf and frame.

Core: ECO*safe* PIR / MF Core.

Thickness: 40 mm (Tol. ± 1,0 mm) doorleaf.

Door openings:
Height: 2133mm (clear internal height) for frame height of 2200mm
Width: 1067mm (clear internal width) for a frame width of 1200mm
Other sizes available on request.

Door hardware: Stainless steel hinges; stainless steel door handle; stainless steel pull handle; door lock with keys; and recessed drop-seal.

Coating

Kingspan CLEAN*safe* 15

Kingspan CLEAN*safe* 15 is a basic polyester coating suitable for standard internal environments, providing reasonable chemical and humidity corrosion resistance.

- Polyester coating: 15µm
- Nominal thickness: 0.63mm (incl. coating)
- Protection film: No

Kingspan CLEAN*safe* 25

Kingspan CLEAN*safe* 25 is a polyester coating suitable for moderately aggressive internal environments, providing good chemical and humidity corrosion resistance.

- Polyester coating: 25µm
- Nominal thickness: 0.63mm (incl. coating)
- Protection film: Yes (standard)

Kingspan CLEAN*safe* 55

Kingspan CLEAN*safe* 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.

- PET film: 55µm
- Nominal thickness: 0.63mm (incl. coating)
- Protection film: Yes (standard)

Kingspan HYGIENE*safe*

Kingspan HYGIENE*safe* is our unique chemically inert, anti-bacterial coating. A rigid polyvinylchloride (PVC) phthalate-free coating applied to pre-treated metal and suitable for humid and chemically aggressive internal environments.

- PVC Rigid film: 120µm
- Nominal thickness: 0.63mm (incl. coating)
- Protection film: Yes (standard)

1200mm

2133mm

UltraTech

Semi-Flush Single Door Leaf

Kingspan CLEAN*safe* 304 (316 available on request)

CLEAN*safe* 304 is cold rolled annealed austenitic stainless steel, suitable for corrosive internal environments.

- Mill finish stainless steel – grade 304
- Finish 2B
- Nominal thickness: 0.63mm
- Protection film: Yes (standard)

Colour Range

RAL9010 and RAL9002.
Other colour options are available on request.

Product Data

Door Leaf

The UltraTech hinged door leafs are constructed from two facings 0.63mm thick hot-dip zinc coated metal to EN 10147, folded to form a 40mm thick door leaf. The edges of the two skins are pressed to create a monobloc cassette construction with smooth folded edges.

The UltraTech hinged features an environmentally-sustainable closed cell ECO*safe* PIR insulation core which is non-deleterious with Zero Ozone Depletion Potential (Zero ODP).

Frame

The UltraTech hinged door frames are constructed from 5mm thick extruded 6063 aluminium alloy. Each frame is cut to length using a computerized saw for a perfect mitred corner joint, to form a neat butt joint connection between jambs and heads. The door frames are Polyester powder coated, colour to match face of door leaf unless stated otherwise.

Gaskets

The UltraTech hinged door frame incorporates a smooth, continuous uPVC gasket fitted to the internal rebate of the frame for ease of maintenance and to ensure that the door leaf seals to the frame.

The UltraTech hinged door leafs incorporates a recessed drop-seal (optional) which automatically lowers upon closing to ensure an airtight seal between the bottom of the door and the flooring.

Hinges

Four recessed stainless steel lift-off hinges are provided.
The number of hinges is calculated based on the physical door leaf size, leaf weight and additional equipment fitted to the door.

Vision Panels

The UltraTech hinged door leafs are available with or without a flush vision panel. Each vision panel is constructed from two 6mm laminated safety glass. Standard size is 300 x 600mm, other sizes are available on request.
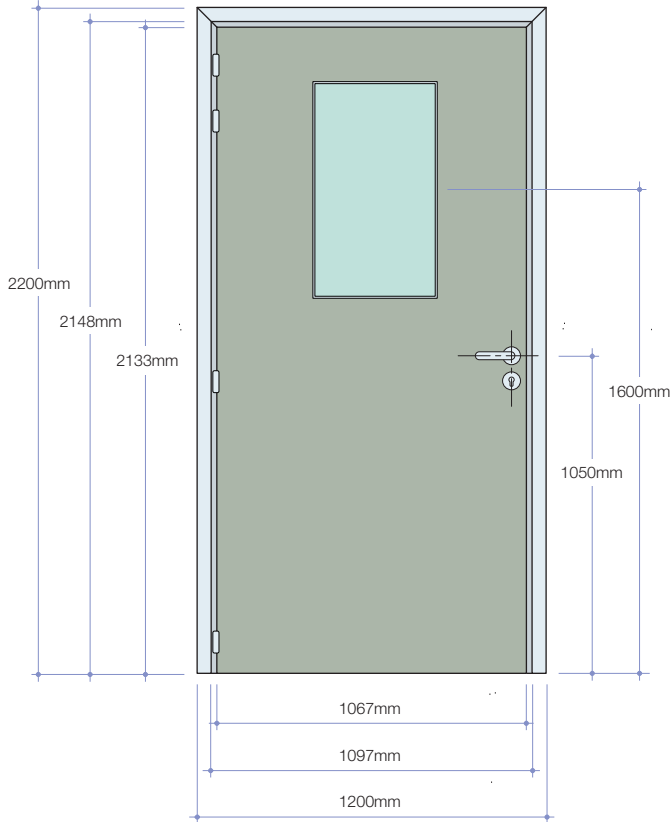
Available Options:

- Double-glazed Flush vision panel 300mm wide x 600mm high (6mm laminated glass), other sizes available on request
- Built in electromagnetic lock (24V)
- Electrical lock (24V)
- Sash lock / latch / night latch / deadlock / escape sashlock / roller bolt
- Flush or semi-flush stainless steel kick-plates
- PVC semi-flush kick-plates
- Stainless steel push-plate and pull handle
- Emergency door with panic bar
- Door stop
- Interlocking system
- Door closer
- Recessed drop seal

Technical Performance:

- Air permeability according to EN 12426: Class 3
- Leakage at +50Pa positive pressure 31m³/h/m²
- Leakage at -50Pa negative pressure 43m³/h/m²
- Resistance to water penetration according to EN12425: Class 0
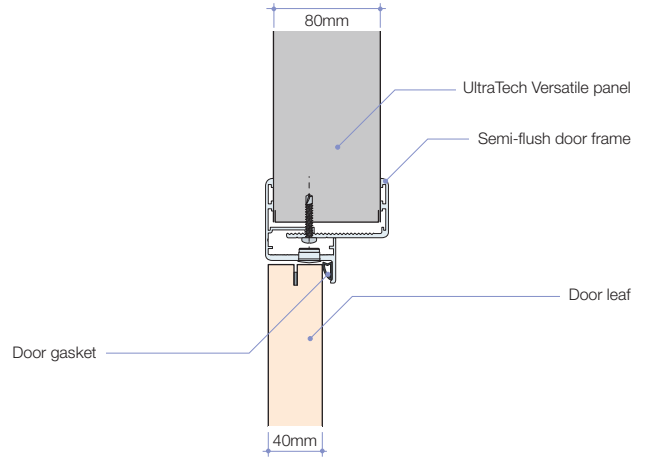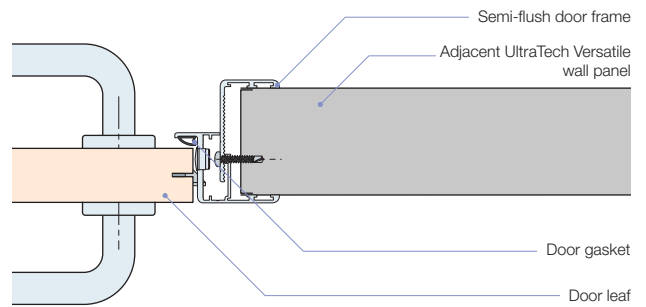- Resistance to windload according to EN 12424: Class 4

Kingspan
Insulated Panels

UltraTech

Semi-Flush Single Door Leaf

Technical drawings

Door Elevation

2200mm
2148mm
2133mm

1600mm
1050mm

1067mm
1097mm
1200mm

Typical cut out sizes are:
Clear opening height +35mm.
Clear opening width +70mm.

Door Head Section
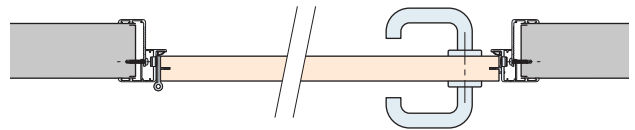
80mm

UltraTech Versatile panel

Semi-flush door frame

Door leaf

Door gasket

40mm

Door Jamb

Semi-flush door frame

Adjacent UltraTech Versatile wall panel

Door gasket

Door leaf

Single Door Leaf and Connecting Panels

Single Door Leaf with Flush Glazing (Vision Panel)

300 x 600mm

UltraTech

Semi-Flush Single Door Leaf

Single Door Leaf

Single Door Leaf with Flush Glazing (Vision Panel)

Recessed drop seal

Recessed drop seal

UltraTech
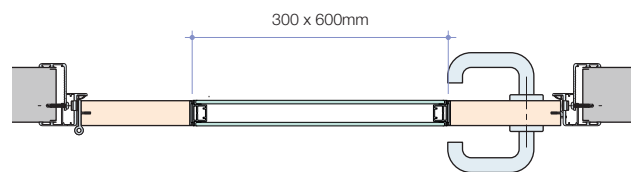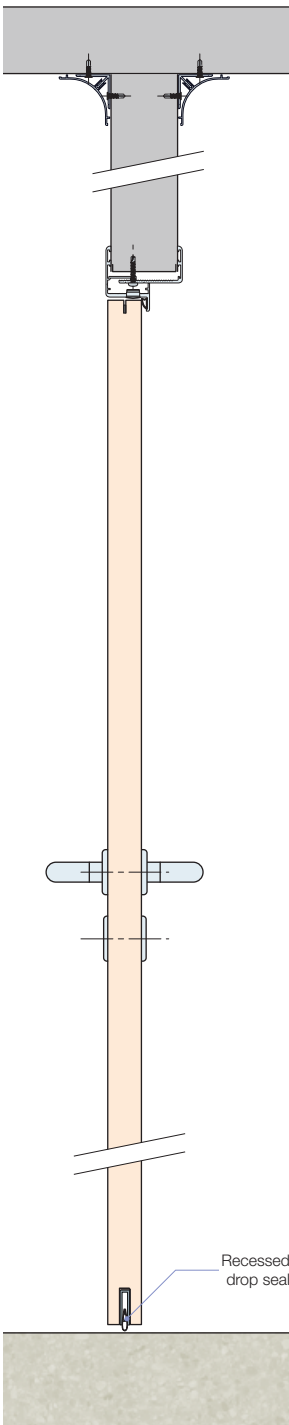
Semi-Flush
Double Door Leaf
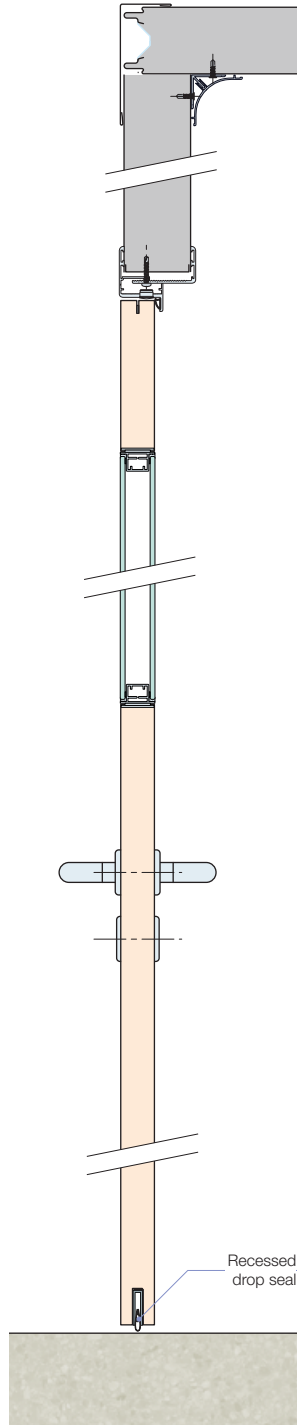
Technical Details

Type: Semi-Flush double door leaf and frame.

Core: ECO*safe* PIR / MF Core.

Thickness: 40 mm (Tol. ± 1,0 mm) doorleaf.

Door openings:

Height: 2133mm (clear internal height) for frame height of 2200mm
Widths:
1067+300mm (clear internal width) for a frame width of 1500mm,
1067+600mm (clear internal width) for a frame width of 1800mm,
1067+900mm (clear internal width) for a frame width of 2100mm

Other sizes available on request.

Door hardware: Stainless steel hinges; stainless steel door handle; stainless steel pull handle; door lock with keys; and recessed drop-seal.

Coating

Kingspan CLEAN*safe* 15

Kingspan CLEAN*safe* 15 is a basic polyester coating suitable for standard internal environments, providing reasonable chemical and humidity corrosion resistance.

- Polyester coating: 15μm
- Nominal thickness: 0.63mm (incl. coating)
- Protection film: No

Kingspan CLEAN*safe* 25

Kingspan CLEAN*safe* 25 is a polyester coating suitable for moderately aggressive internal environments, providing good chemical and humidity corrosion resistance.

- Polyester coating: 25μm
- Nominal thickness: 0.63mm (incl. coating)
- Protection film: Yes (standard)

Kingspan CLEAN*safe* 55

Kingspan CLEAN*safe* 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.

- PET film: 55μm
- Nominal thickness: 0.63mm (incl. coating)
- Protection film: Yes (standard)

Kingspan HYGIENE*safe*

Kingspan HYGIENE*safe* is our unique chemically inert, anti-bacterial coating. A rigid polyvinylchloride (PVC) phthalate-free coating applied to pre-treated metal and suitable for humid and chemically aggressive internal environments.

- PVC Rigid film: 120μm
- Nominal thickness: 0.63mm (incl. coating)
- Protection film: Yes (standard)

1800mm

2133mm

Kingspan
Insulated Panels

UltraTech

Semi-Flush Double Door Leaf

Kingspan CLEAN*safe* 304 (316 available on request)

CLEAN*safe* 304 is cold rolled annealed austenitic stainless steel, suitable for corrosive internal environments.

- Mill finish stainless steel – grade 304
- Finish 2B
- Nominal thickness: 0.63mm
- Protection film: Yes (standard)

Colour Range

RAL9010 and RAL9002.
Other colour options are available on request.

Product Data

Door Leaf

The UltraTech hinged door leafs are constructed from two facings 0.63mm thick hot-dip zinc coated metal to EN 10147, folded to form a 40mm thick door leaf. The edges of the two skins are pressed to create a monobloc cassette construction with smooth folded edges.

The UltraTech hinged features an environmentally-sustainable closed cell ECO*safe* PIR insulation core which is non-deleterious with Zero Ozone Depletion Potential (Zero ODP).

Frame

The UltraTech hinged door frames are constructed from 5mm thick extruded 6063 aluminium alloy. Each frame is cut to length using a computerized saw for a perfect mitred corner joint, to form a neat butt joint connection between jambs and heads. The door frames are Polyester powder coated, colour to match face of door leaf unless stated otherwise.

Gaskets

The UltraTech hinged door frame incorporates a smooth, continuous uPVC gasket fitted to the internal rebate of the frame for ease of maintenance and to ensure that the door leaf seals to the frame.

The UltraTech hinged door leafs incorporates a recessed drop-seal (optional) which automatically lowers upon closing to ensure an airtight seal between the bottom of the door and the flooring.

Hinges

Four recessed stainless steel lift-off hinges are provided.
The number of hinges is calculated based on the physical door leaf size, leaf weight and additional equipment fitted to the door.

Vision Panels

The UltraTech hinged door leafs are available with or without a flush vision panel. Each vision panel is constructed from two 6mm laminated safety glass. Standard size is 300 x 600mm, other sizes are available on request.
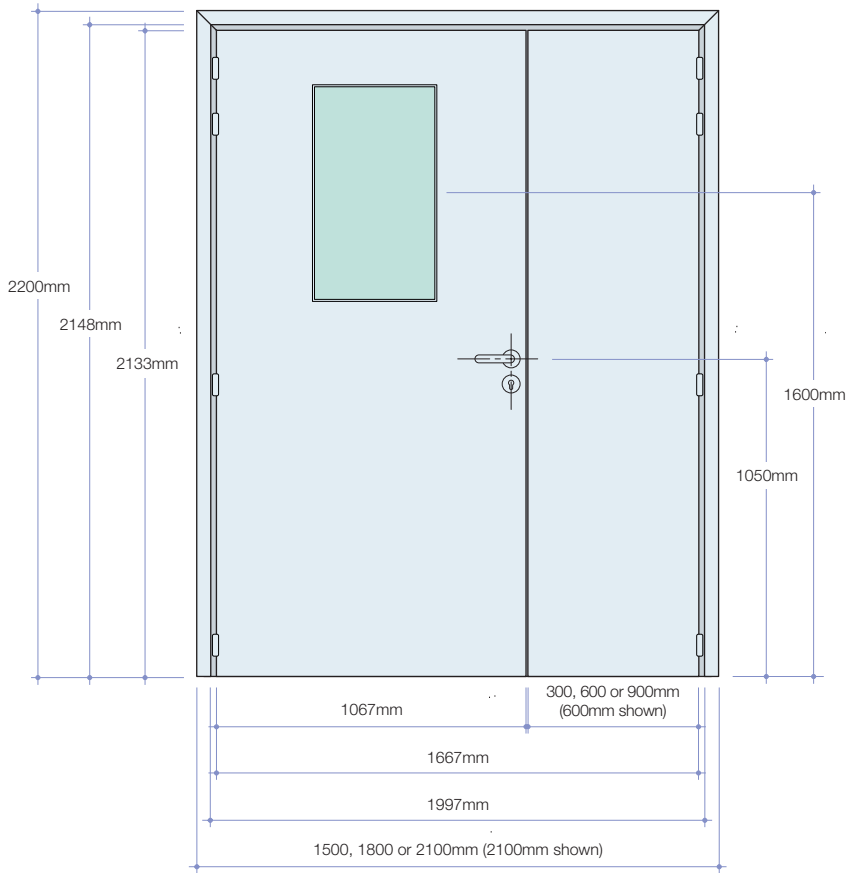
Available Options:

- Double-glazed Flush vision panel 300mm wide x 600mm high (6mm laminated glass), other sizes available on request
- Built in electromagnetic lock (24V)
- Electrical lock (24V)
- Sash lock / latch / night latch / deadlock / escape sashlock / roller bolt
- Flush or semi-flush stainless steel kick-plates
- PVC semi-flush kick-plates
- Stainless steel push-plate and pull handle
- Emergency door with panic bar
- Door stop
- Interlocking system
- Door closer
- Recessed drop seal

Technical Performance:

- Air permeability according to EN 12426: Class 1
- Leakage at +50Pa positive pressure 9.5m³/h/m²
- Leakage at -50Pa negative pressure 19m³/h/m²
- Resistance to water penetration according to EN12425: Class 0
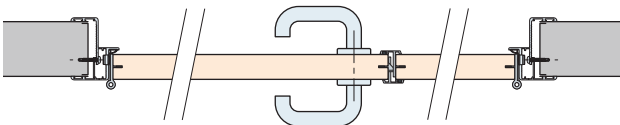- Resistance to windload according to EN 12424: Class 4

Kingspan
Insulated Panels

UltraTech

Technical drawings

Door Elevation

2200mm
2148mm
2133mm

1600mm
1050mm

1067mm

300, 600 or 900mm
(600mm shown)

1667mm

1997mm

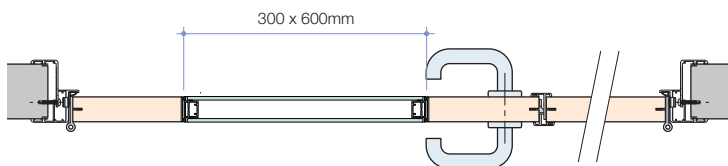1500, 1800 or 2100mm (2100mm shown)

Typical cut out sizes are:
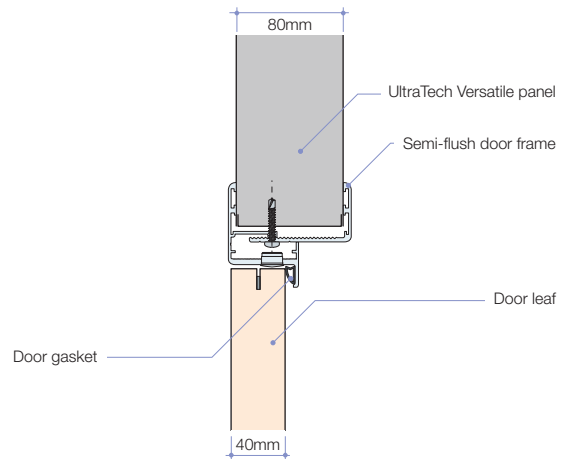Clear opening height +35mm.
Clear opening width +70mm.

Double Door Leaf and Connecting Panels

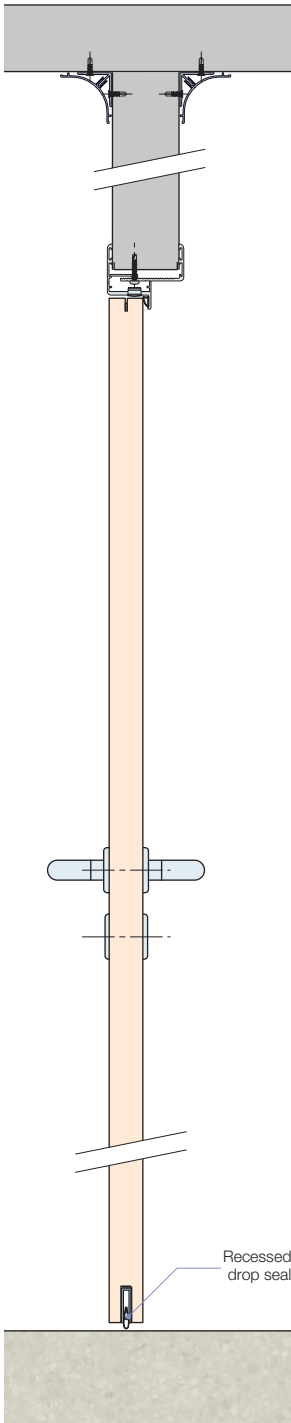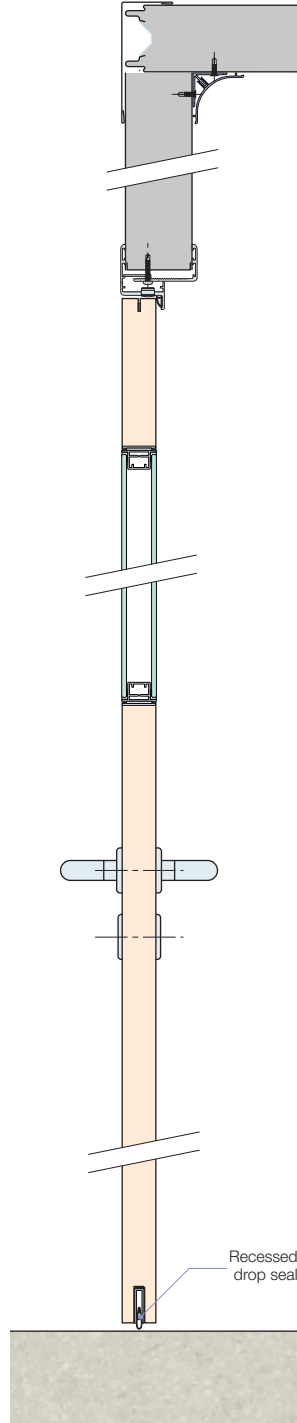### Double Door Leaf with Flush Glazing (Vision Panel)

300 x 600mm

Door Head Section

80mm

UltraTech Versatile panel

Semi-flush door frame

Door leaf

Door gasket

40mm

Kingspan
Insulated Panels

UltraTech

Double Door Leaf

Double Door Leaf with Flush Glazing (Vision Panel)

Recessed drop seal

Recessed drop seal

Kingspan
Insulated Panels

UltraTech

Sliding Door

Technical Details

Type: Airtight sliding door.

Core: PUR / MF.

Thickness: 60 mm (Tol. ± 1,0 mm) doorleaf.

Door openings:
Height: 2000mm or 2200mm (clear internal height) for overall height of 2375mm or 2575mm.
Width: 900, 1200, 1500 or 1800mm (clear internal width) for a an overall width of 1000, 1300, 1600 or 1900mm.
Other sizes available on request.

Door hardware: stainless steel door handle.

Standard coatings:
Polyester coating RAL1015, RAL5008, RAL5010, RAL6011, RAL7032, RAL9002 and RAL9010. Anti-bacterial HYGIENE*safe* coating RAL9010 or RAL9002 available on request.

Product Data

Door Leaf

The UltraTech sliding door leafs are constructed from two facings 0.63mm thick hot-dip zinc coated metal to EN 10147, folded to form a 60mm thick door leaf. The edges of the two skins are pressed to create a monobloc cassette construction with smooth seamless edges.

The UltraTech sliding door leaf features an environmentally-sustainable closed-cell IPN-QuadCore insulation core which is non-deleterious with Zero Ozone Depletion Potential (Zero ODP).

2 x doorleaf width + 50mm

Clear opening height + 375mm

Clear opening height + 50mm

Clear opening width + 100mm

Frame

The UltraTech sliding door frames are constructed from 3mm thick extruded 6063 aluminium alloy to form a wraparound frame. Each frame is cut to length using a computerized saw for a perfect mitred corner joint, to form a neat butt joint connection between jambs and heads. The door frames are Polyester powder coated, colour to match face of door leaf unless stated otherwise.

Gaskets

The UltraTech sliding door frame incorporates a smooth, continuous EPDM rubber gasket fitted to the internal rebate of the frame for ease of maintenance and to ensure that the door leaf hermetically seals to the frame.

Rail System

The FERMOCLEAN 2920 rail system features aluminium cover for cleanroom applications, anti-derailment system, bottom guide fixed to the underside of the doorleaf. The product is in compliance with European directives and standards.

Kingspan
Insulated Panels

UltraTech | Sliding Door

Vision Panels

The UltraTech hinged door leafs are available with or without a flush or semi-flush vision panel. Each vision panel is constructed from two 6mm laminated safety glass. Standard size is 300 x 600mm, other sizes are available on request.

Available Options:

- Double-glazed flush or semi-flush vision panel 300mm wide x 600mm high (6mm laminated glass), other sizes available on request
- Built in electromagnetic lock (24V)
- Interlocking system
- Manual or automatic operation

Technical Performance:

- Air permeability according to EN 12426: Class 3
- Leakage at +50Pa positive pressure 5.2m³/h/m²
- Leakage at -50Pa negative pressure 5.3m³/h/m²
- Resistance to water penetration according to EN12425: Class 2
- Resistance to windload according to EN 12424: Class 4

Technical drawing

UltraTech

Door Interlocking System
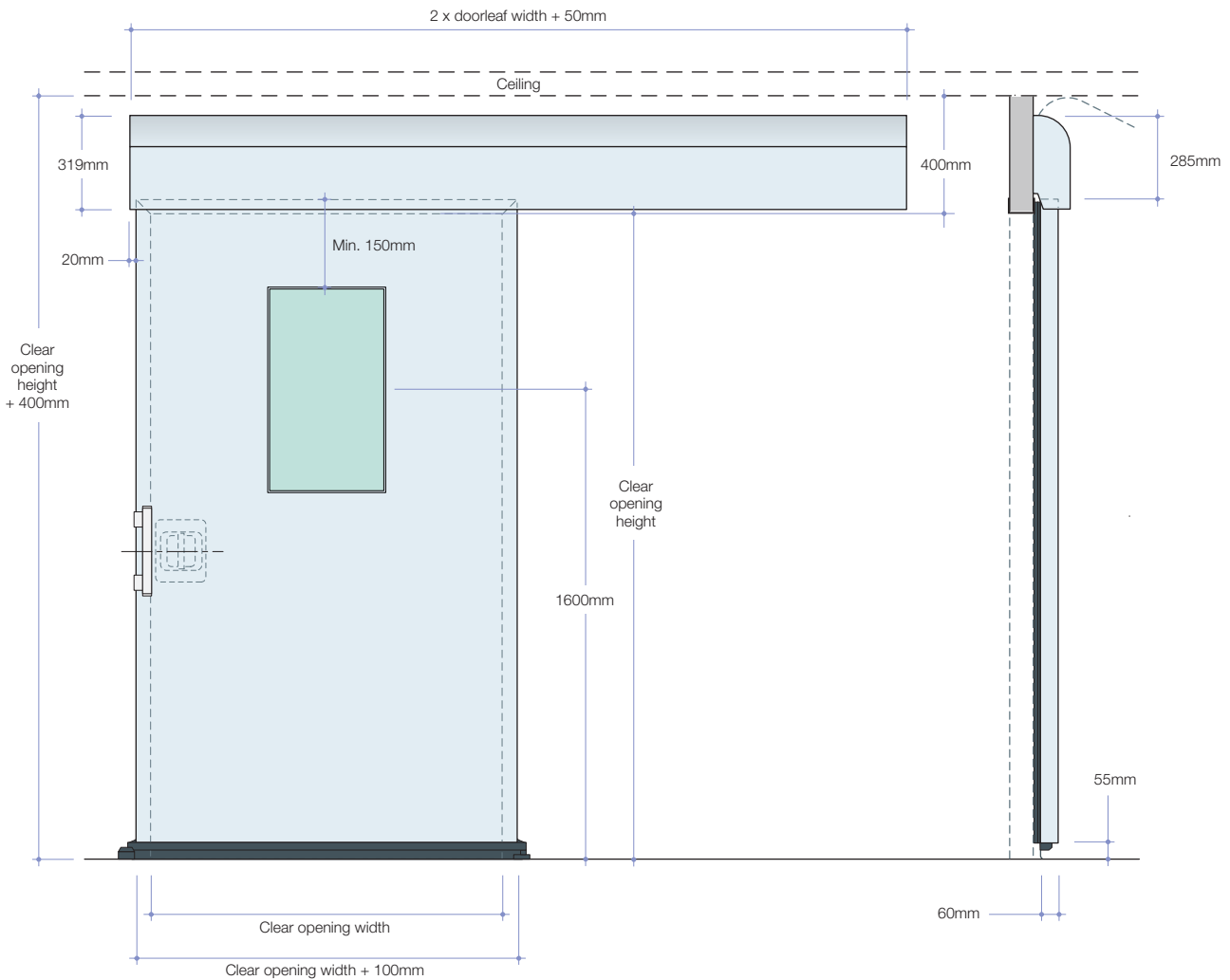
Kingspan UK Interlock Push Buttons

An integral part of the Kingspan door interlocking solution are the Push Button / LED Indicator units, which are integrated into the frame of each door.

Each door frame contains a Master and a Slave push button unit. The units both have one push button which includes red and green LEDs for indicating door status. Each set of Master and Slave buttons connects directly to the interlock controller with one RJ45 patch cable which can be up to 10m long.

Pressing the button on either side of the door, will unlock the door as long as no other door in the interlock is open. The push button units include connections for green Emergency Release call points, for emergency escape purposes.

The units fit completely flush into the door frame with no visible fixings. They have highly durable polyester fascias and are sealed into the frame to IP65. Whilst being sealed into the frame, they can be removed without damage for any service requirements.

- Flush fitting
- No fixing screws
- Highly durable materials
- Sealed to IP65
- Red and green LED indications

Specification	
Operational voltage	12v DC
Material	Polyester fascia, aluminium chassis
Dimensions	135mm x 28mm
Weight	0.14 kg (master and slave)
IP Rating	IP65
Approvals	CE marked and RoHs compliant

135mm

28mm

Button pillow embossed to 15mm

Clear through for LED

Grey RAL9006

Dark grey

UltraTech

Door Interlocking System
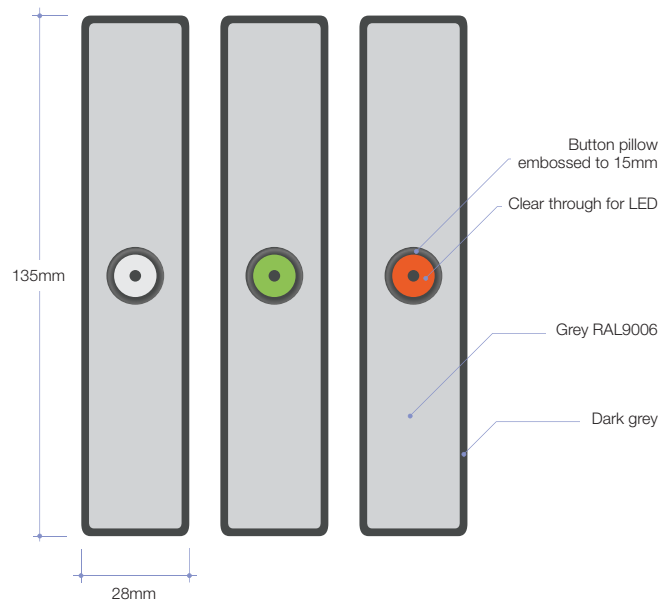
Kingspan European Interlock Push Buttons

An integral part of the Kingspan door interlocking solution are the Push Button / LED Indicator units, which are integrated into the frame of each door.
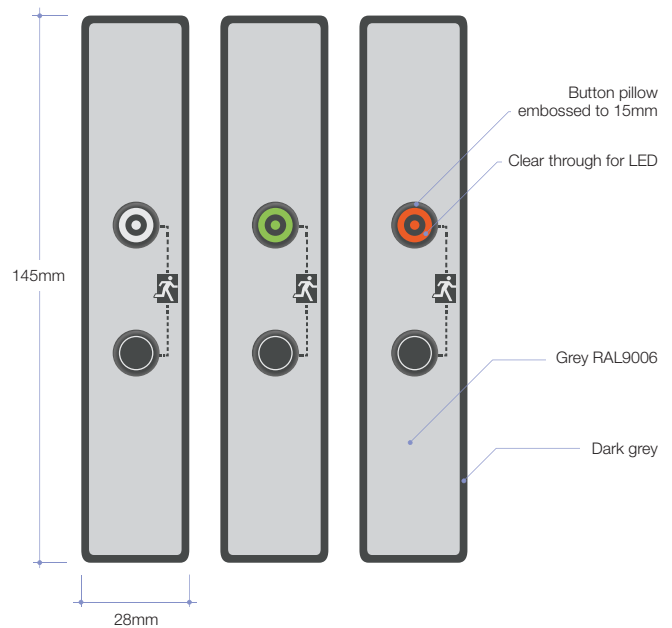
Each door frame contains a Master and a Slave push button unit. The units both have two push buttons, one of which includes red and green LEDs for indicating door status. Each set of Master and Slave buttons connects directly to the interlock controller with one RJ45 patch cable which can be up to 10m long.

Pressing either of the buttons will unlock the door, as long as no other door in the interlock is open. Pressing both buttons simultaneously initiates the emergency release function which will unlock a locked door regardless of the status of other doors.

The units fit completely flush into the door frame with no visible fixings. They have highly durable polyester fascias and are sealed into the frame to IP65. Whilst being sealed into the frame, they can be removed without damage for any service requirements.

- Flush fitting
- No fixing screws
- Highly durable materials
- Sealed to IP65
- Red and green LED indications
- Emergency release function

Specification	
Operational voltage	12v DC
Material	Polyester fascia, aluminium chassis
Dimensions	145mm x 28mm
Weight	0.14 kg (master and slave)
IP Rating	IP65
Approvals	CE marked and RoHs compliant

145mm

28mm

Button pillow embossed to 15mm

Clear through for LED

Grey RAL9006

Dark grey

Kingspan
Insulated Panels

UltraTech

Door Interlocking System

Kingspan Door Interlock Controller

The IG-KS-04 Door Interlock Controller is capable of interlocking up to 4 doors. It can also be linked to additional identical controllers to enable the interlocking of as many doors as necessary.

Out of the box, the controller operates such that if any door is in use, then no other doors can be opened. However, the controller can also be programmed on-site to allow different combinations of doors to be interlocked.

The controller works in conjunction with the Push Button / Indicator plates which must be installed at each door. Each set of push buttons is simply linked to the controller with one RJ45 patch cable which can be up to 10m long.

Additional programming features include:

- Each door can be configured to be 'Normally Closed' or 'Normally Open'.
- Dwell time, the time the door lock is unlocked after pressing a button, can be adjusted. The default time is 5 seconds.
- A 'Door Open Too Long' alarm is incorporated in the system, the time delay for this can be programmed, the default is 1 minute.

Access control systems can easily be integrated with the system and push buttons can be disabled when access control is in use. In this scenario the LED indicators on the buttons still function to indicate the status of the door.

Powered doors such as automatic opening doors and roller shutters can also be integrated with the system.

The controller with it's Power Supply Unit which also powers the door locks, is housed in a IP67 rated Polycarbonate enclosure which includes 5 cable entry glands.

- Interlocks up to 4 doors
- Expandable to any number of doors
- Programmable combinations of interlocking
- Normally Open and Normally Closed doors catered for within one system
- Integration with access control systems
- Integration with powered doors
- Simple installation and configuration
- IP67 enclosure
- Integral Power Supply Unit

Specification

Power Output	230v AC mains
Integral Power Supply	12v DC 5A
Material	Polycarbonate
Dimensions	280mm x 280mm x 130mm
Weight	2.3 kg
IP Rating	IP67
Approvals	CE marked and RoHs compliant

280mm

280mm   130mm

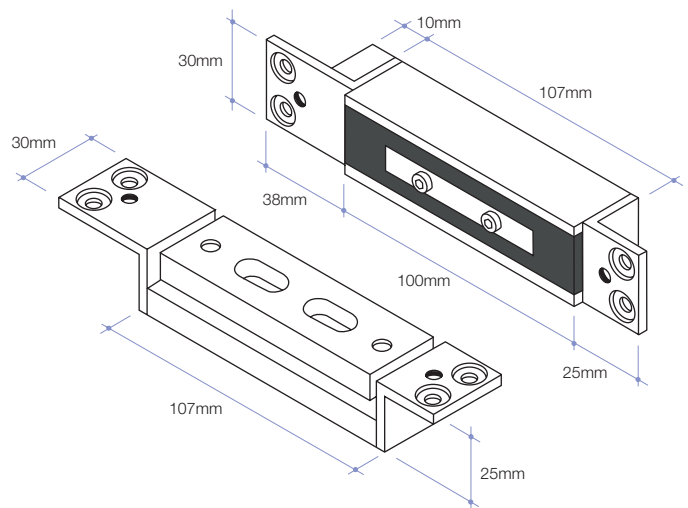# UltraTech
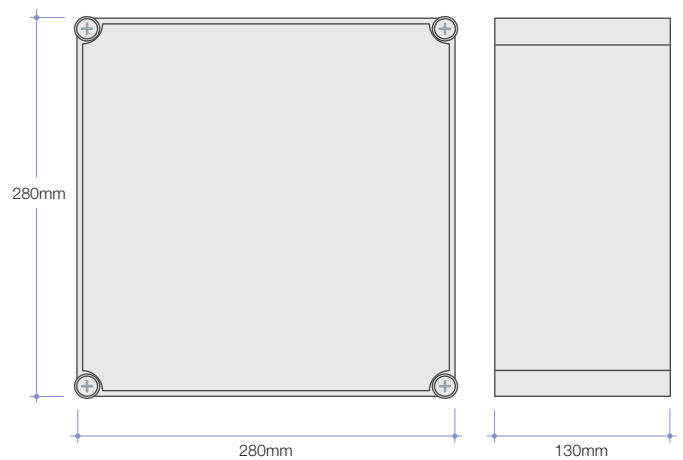
Kingspan Shearlock

The Kingspan Shearlock delivers a fully flush compact and reliable locking solution.

Achieving up to 1000kg of shear holding capability, this shearlock also has improved door tolerance alignment.

The lock fully monitors the door position and switches a clean change over relay when the lock is confirmed to be locked.

A secondary magnetic reed contact is also integral to the Shearlock. This contact allows the lock to be used in 'normally open' doors as well as 'normally closed' doors within interlocking systems, without the need for a separate door contact to be fitted to the door and frame.

- Compact 30mm wide x 100mm long
- Up to 1000kg shear force
- No loss of headroom
- Operates on 12v DC
- 1.5A pull in for 2 seconds
- 0.5A continuous hold
- Monitored as standard
- Secondary integral reed contact
- Improved door tolerance alignment

Kingspan
Insulated Panels

Kingspan®
Insulated Panels