

Maximum reliability. Minimum fuss.

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Fasteners for Vertical Insulation



Fixfast design, manufacture and supply specialist building fasteners and components for the walls and roofs of industrial, commercial and larger residential buildings. We collaborate with major building envelope system manufacturers, to provide them and their clients with engineered fastening and sealing solutions.

This selector guide has been created as an easy to use reference document, identifying the most common fasteners and components for use when installing the insulation in rainscreen system applications.

Full technical data for these products along with application uses can be found on our website at www.fixfast.com by searching for the product.

Our specification team can assist in providing NBS specifications for specific projects, whilst our customer services team can answer questions regarding the usage or ordering of Fixfast products.

If you have any queries regarding our products or services then please do contact our customer services team by emailing sales@fixfast.com.

Extract from MCRMA Guidance Document GD11

The following extract from the MCRMA (Metal Roofing & Cladding Manufacturer's Association) Guidance Document GD11 provides suggested good practice relating to fasteners used within rainscreen systems.

"Fastener materials

Good practice dictates the use of non-ferrous materials with regard to fasteners used within rainscreen build-ups and systems. These typically include stainless steels, aluminium and plastics.

Structural fasteners for securing the frame and framing system should be made from austenitic grades of stainless steel such as 304 or 316 or grade dependent upon location and application.

Aluminium fasteners such as rivets of a suitable aluminium grade and flange size are used within systems primarily on the installation of the facade.

Nylons and plastics are also used within rainscreen systems; especially with regards to retention of the rainscreen insulation layer and when in conjunction with a screw set anchor for installation of support brackets"

For reference the full document can be found at <https://mcrma.co.uk/wp-content/uploads/2019/05/GD11/-MCRMA-rainscreen-fixings-and-fastenings.pdf>

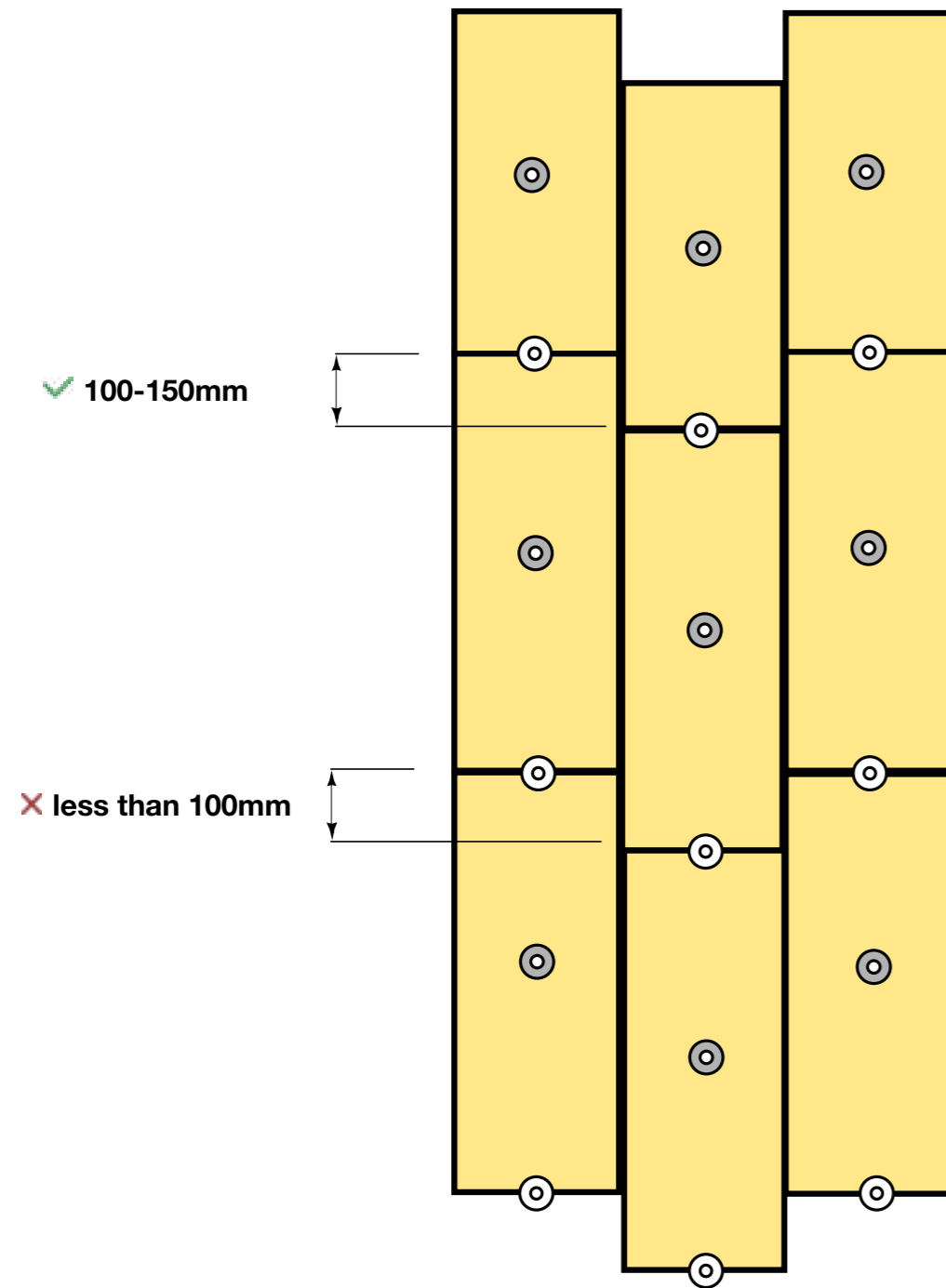
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Typical fastener layout for 1200mm x 600mm semi-rigid mineral fibre board



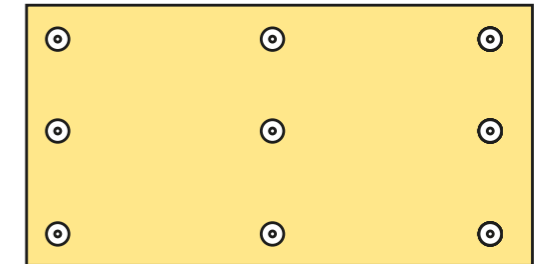
- ⊙ Metal Fixing
- Polypropylene Fixing

NOTE: 70mm h_{ef}

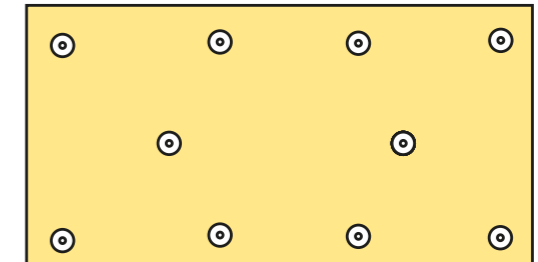
Please check with the insulation manufacturer for specific fixing and fire safety recommendations.

Typical fastener layouts for 2400mm x 1200mm rigid PIR board

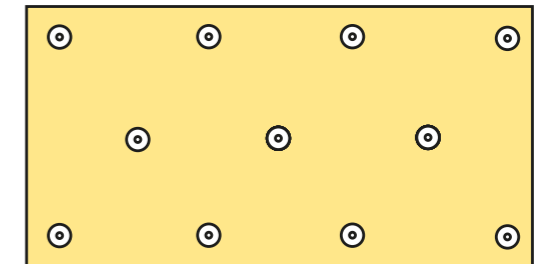
9 No. per board
(2.4m x 1.2m board - 3.13 fixings / m²)



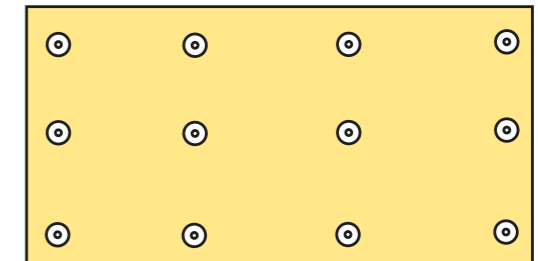
10 No. per board
(2.4m x 1.2m board - 3.47 fixings / m²)



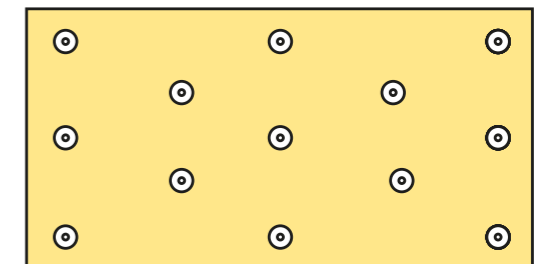
11 No. per board
(2.4m x 1.2m board - 3.82 fixings / m²)



12 No. per board
(2.4m x 1.2m board - 4.17 fixings / m²)



13 No. per board
(2.4m x 1.2m board - 4.51 fixings / m²)



Please check with the insulation manufacturer for specific fixing and fire safety recommendations.

Please check with the insulation manufacturer for specific fixing and fire safety recommendations.

Fixing soft insulation to steel framing system - polypropylene head

Use DrillFast stainless steel fasteners and tube washers

8mm hex head: use GreenDrive



Insulation Thickness	Including 12mm sheathing board	Fastener and tube combination to steel
50mm	SF-T-75 x 25 & DF3-SS-HT-5.5 x 85	SF-T-75 x 25 & DF3-SS-HT-5.5 x 85
60mm	SF-T-75 x 25 & DF3-SS-HT-5.5 x 110	SF-T-75 x 25 & DF3-SS-HT-5.5 x 85
75mm	SF-T-75 x 25 & DF3-SS-HT-5.5 x 110	SF-T-75 x 25 & DF3-SS-HT-5.5 x 110
100mm	SF-T-75 x 25 & DF3-SS-HT-5.5 x 150	SF-T-75 x 25 & DF3-SS-HT-5.5 x 130
125mm	SF-T-75 x 25 & DF3-SS-HT-5.5 x 180	SF-T-75 x 25 & DF3-SS-HT-5.5 x 150
150mm	SF-T-75 x 25 & DF3-SS-HT-5.5 x 225	SF-T-75 x 25 & DF3-SS-HT-5.5 x 180
180mm	SF-T-75 x 25 & DF3-SS-HT-5.5 x 225	SF-T-75 x 25 & DF3-SS-HT-5.5 x 225
200mm	SF-T-75 x 25 & DF3-SS-HT-5.5 x 275	SF-T-75 x 25 & DF3-SS-HT-5.5 x 225
225mm	SF-T-75 x 25 & DF3-SS-HT-5.5 x 275	SF-T-75 x 25 & DF3-SS-HT-5.5 x 275
250mm	SF-T-75 x 25 & DF5-SSA4-HT-6.3 x 330	SF-T-75 x 25 & DF3-SS-HT-5.5 x 275
300mm	Please contact Fixfast for advice	SF-T-75 x 25 & DF5-SSA4-HT-6.3 x 330

Slab thicknesses over 230mm are only possible as a double layer

Fixing soft insulation to steel framing system - metal fixing

Use DrillFast® stainless steel fasteners and stainless steel washers

8mm hex head: use GreenDrive



Insulation Thickness	Including 12mm sheathing board	Fastener and washer combination to steel
50mm	SF-P-SS-70-D & DF3-SS-HT-5.5 x 85	SF-P-SS-70-D & DF3-SS-HT-5.5 x 85
60mm	SF-P-SS-70-D & DF3-SS-HT-5.5 x 110	SF-P-SS-70-D & DF3-SS-HT-5.5 x 85
75mm	SF-P-SS-70-D & DF3-SS-HT-5.5 x 110	SF-P-SS-70-D & DF3-SS-HT-5.5 x 110
100mm	SF-P-SS-70-D & DF3-SS-HT-5.5 x 150	SF-P-SS-70-D & DF3-SS-HT-5.5 x 130
125mm	SF-P-SS-70-D & DF3-SS-HT-5.5 x 180	SF-P-SS-70-D & DF3-SS-HT-5.5 x 150
150mm	SF-P-SS-70-D & DF3-SS-HT-5.5 x 225	SF-P-SS-70-D & DF3-SS-HT-5.5 x 180
180mm	SF-P-SS-70-D & DF3-SS-HT-5.5 x 225	SF-P-SS-70-D & DF3-SS-HT-5.5 x 225
200mm	SF-P-SS-70-D & DF3-SS-HT-5.5 x 275	SF-P-SS-70-D & DF3-SS-HT-5.5 x 225
220mm	SF-P-SS-70-D & DF3-SS-HT-5.5 x 275	SF-P-SS-70-D & DF3-SS-HT-5.5 x 275
225mm	SF-P-SS-70-D & DF3-SS-HT-5.5 x 275	SF-P-SS-70-D & DF3-SS-HT-5.5 x 275
250mm	SF-P-SS-70-D & DF5-SSA4-HT-6.3 x 330	SF-P-SS-70-D & DF3-SS-HT-5.5 x 275
300mm	SF-P-SS-70-D & DF5-SSA4-HT-6.3 x 330	SF-P-SS-70-D & DF5-SSA4-HT-6.3 x 330

Fixing soft insulation to masonry - polypropylene head

Use Fischer DHK nylon anchors

Use 8mm SDS drill bits for pilot hole



Insulation Thickness	Fastener
50mm	DHK-60
60mm	DHK-60
75mm	DHK-80
100mm	DHK-100
125mm	DHK-140
150mm	DHK-160
180mm	DHK-180
200mm	DHK-200
220mm	DHK-220
225mm	TDIS-300
250mm	TDIS-300

Fixing soft insulation to masonry - metal

Use Fischer DHM stainless steel anchors and DTM stainless steel plates

Use 8mm SDS drill bits for pilot hole



Insulation Thickness	Fastener and washer combination
50mm	TIDR-110 & TIDR-T-80
60mm	TIDR-110 & TIDR-T-80
75mm	TIDR-140 & TIDR-T-80
100mm	TIDR-140 & TIDR-T-80
125mm	TIDR-170 & TIDR-T-80
150mm	TIDR-200 & TIDR-T-80
180mm	TIDR-250 & TIDR-T-80
200mm	TIDR-250 & TIDR-T-80
220mm	TIDR-300 & TIDR-T-80
225mm	TIDR-300 & TIDR-T-80
250mm	TIDR-300 & TIDR-T-80

Fixing rigid insulation to steel framing system - polypropylene head

Use DrillFast stainless steel fasteners and tube washers

8mm hex head: use GreenDrive



Insulation Thickness	Including 12mm sheathing board	Fastener and tube combination to steel
50mm	SF-T-50 x 25 & DF3-SS-HT-5.5 x 85	SF-T-50 x 25 & DF3-SS-HT-5.5 x 85
60mm	SF-T-50 x 25 & DF3-SS-HT-5.5 x 110	SF-T-50 x 25 & DF3-SS-HT-5.5 x 85
75mm	SF-T-50 x 25 & DF3-SS-HT-5.5 x 110	SF-T-50 x 25 & DF3-SS-HT-5.5 x 110
100mm	SF-T-50 x 25 & DF3-SS-HT-5.5 x 150	SF-T-50 x 25 & DF3-SS-HT-5.5 x 130
125mm	SF-T-50 x 25 & DF3-SS-HT-5.5 x 180	SF-T-50 x 25 & DF3-SS-HT-5.5 x 150
150mm	SF-T-50 x 25 & DF3-SS-HT-5.5 x 225	SF-T-50 x 25 & DF3-SS-HT-5.5 x 180
180mm	SF-T-50 x 25 & DF3-SS-HT-5.5 x 225	SF-T-50 x 25 & DF3-SS-HT-5.5 x 225
200mm	SF-T-50 x 25 & DF3-SS-HT-5.5 x 275	SF-T-50 x 25 & DF3-SS-HT-5.5 x 225
225mm	SF-T-50 x 25 & DF3-SS-HT-5.5 x 275	SF-T-50 x 25 & DF3-SS-HT-5.5 x 275
250mm	SF-T-50 x 25 & DF5-SSA4-HT-6.3 x 330	SF-T-50 x 25 & DF3-SS-HT-5.5 x 275
300mm	Please contact Fixfast for advice	SF-T-50 x 25 + DF5-SSA4-HT-6.3 x 330

Slab thicknesses over 230mm are only possible as a double layer

Fixing rigid insulation to masonry - metal

Use Fischer DHM stainless steel anchors and DTM stainless steel plates

Use 8mm SDS drill bits for pilot hole



Insulation Thickness	Fastener and washer combination
50mm	TIDR-110 & TIDR-T-80
60mm	TIDR-110 & TIDR-T-80
75mm	TIDR-140 & TIDR-T-80
100mm	TIDR-140 & TIDR-T-80
125mm	TIDR-170 & TIDR-T-80
150mm	TIDR-200 & TIDR-T-80
180mm	TIDR-250 & TIDR-T-80
200mm	TIDR-250 & TIDR-T-80
220mm	TIDR-300 & TIDR-T-80
225mm	TIDR-300 & TIDR-T-80
250mm	TIDR-300 & TIDR-T-80

Fixing rigid insulation to steel framing system - metal fixing

Use DrillFast® stainless steel fasteners and stainless steel washers

8mm hex head: use GreenDrive



Insulation Thickness	Including 12mm sheathing board	Fastener and washer combination to steel
50mm	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 85	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 85
60mm	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 110	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 85
75mm	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 110	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 110
100mm	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 150	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 130
125mm	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 180	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 150
150mm	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 225	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 180
180mm	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 225	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 225
200mm	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 275	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 225
220mm	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 275	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 275
225mm	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 275	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 275
250mm	SF-P-SSA4-40-F & DF5-SSA4-HT-6.3 x 330	SF-P-SSA4-40-F & DF3-SS-HT-5.5 x 275
300mm	Please contact Fixfast for advice	SF-P-SSA4-40-F & DF5-SSA4-HT-6.3 x 330

Fixing rigid insulation to masonry - polypropylene head

Use Fischer DHK nylon anchors

Use 8mm SDS drill bits for pilot hole



Insulation Thickness	Fastener
50mm	DHK-45/60
60mm	DHK-45/60
75mm	DHK-45/80
100mm	DHK-45/100
125mm	DHK-140
150mm	DHK-160
180mm	DHK-180
200mm	DHK-200
220mm	DHK-220
225mm	TIDS-300
250mm	TIDS-300

Accessories

GreenDrive

One-piece drive socket for DrillFast® stainless fasteners, supports the head for easy accurate driving.



Product Code: GREENDRIVE

SDS Drill Bits

Drill bits for insulation Anchors



Product Code: SDS 8 x length

+ Installation tool

Variable speed electric screwdriver

+ Installation drive

Fixfast GreenDrive, YellowDrive, RedDrive or TorxDrive, depending on the fastener being used

+ Installation speed

1500rpm

+ Correct Installation

Fasteners should be driven within three degrees of perpendicular to the surface of the fastened material. Use a depth-setting nosepiece to avoid over-driving, and do not over-tighten. Variants with bonded washers should not have the rubber compressed to less than two-thirds of its uncompressed height. Care should be taken when engaging and disengaging from the fastener and to avoid damage to the protective coating.

+ Handling

Fasteners may have sharp edges, and the use of power tools can be dangerous. Use personal protective equipment. Store fasteners in dry conditions. Inspect each fastener before use and do not use damaged fasteners. Replace any fasteners which appear to have been installed incorrectly.

Many other tools and accessories are available.

Please see the current Fixfast Product Directory, go to www.fixfast.com, or ask the Fixfast customer service team.

Technical Notes

Fastener Data

- + All dimensions are subject to manufacturing tolerances.
- + Performance values are tested and calculated according to Eurocode procedures and appropriate safety factors should be applied in any calculations using these values.

Fastener Selection

- + Recommended fastener lengths are calculated using standard tolerances for the fasteners and the combination of materials in the build-up.
- + If there is distortion in the supporting construction, or other non-standard application detail, longer fasteners may be necessary than those shown. Always check the actual circumstances before deciding on a particular length.

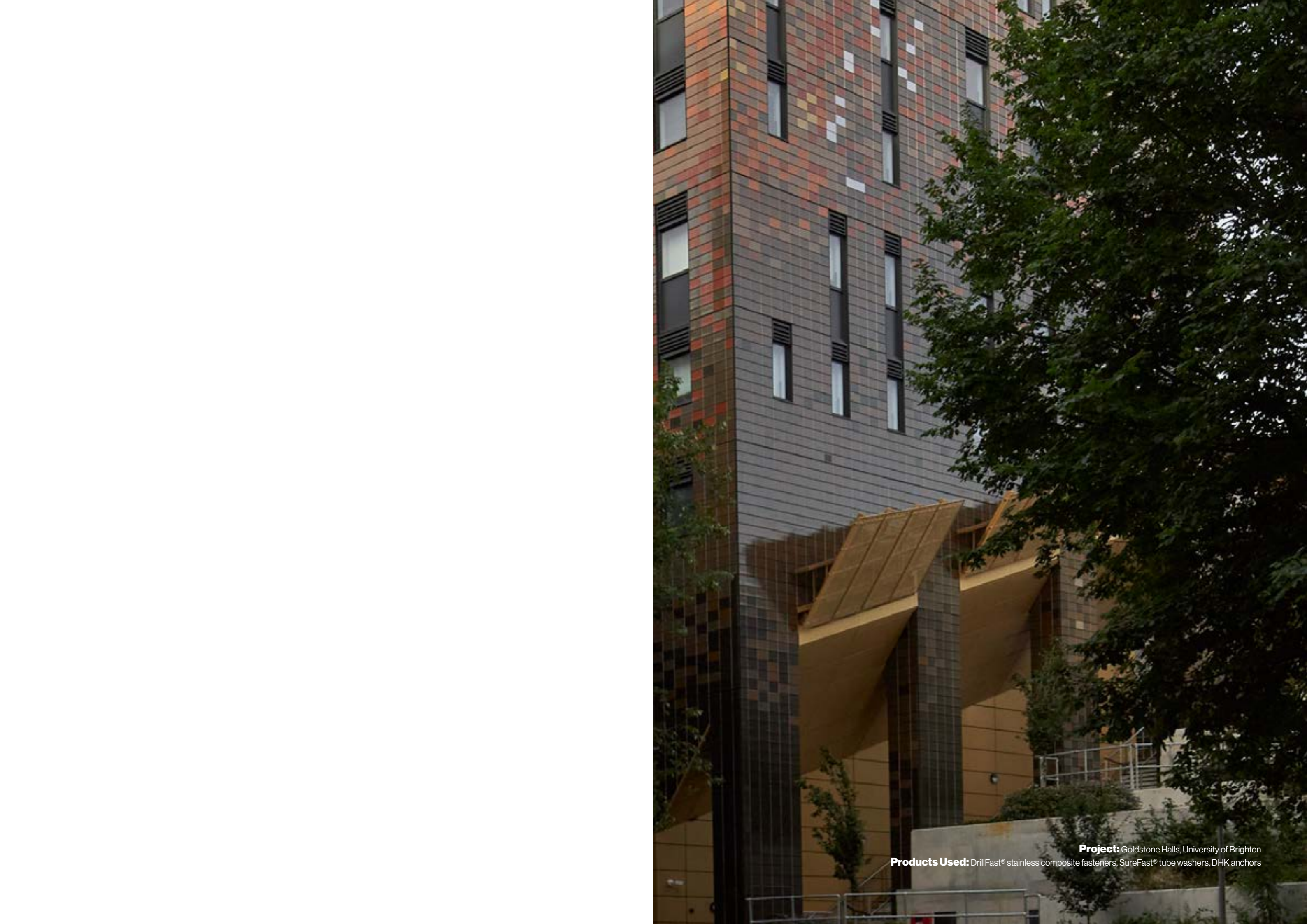
Further Assistance

- + For any enquiry, or to discuss your requirements with someone knowledgeable, call the Fixfast customer service team on 0800 304 7616.
- + Full literature is available for the Fixfast range, or visit www.fixfast.com
- + Other performance data may be available on request. For more unusual applications, tests can be carried out in our in-house technical centre to provide the necessary data.
- + Site visits are also possible, particularly for pull-out performance into concrete, masonry or other variable substrates. Please ask for a Site Visit Request form if you think this service would be useful.
- + CAD files of fasteners are available on request for inclusion in drawings.

The information contained in this document is based on Fixfast's product data. It is provided in good faith but Fixfast cannot be held liable for any errors. Performance is dependent on adherence to the conditions and instructions contained in Fixfast's Technical Data Sheets for the products shown. Performance values should be approved by a qualified engineer, and Fixfast recommend preliminary tests for any application where variation is possible in the materials or substrates involved.



All our technical data can be found on our website against the individual products - including certifications, performance values, and other relevant technical data.



Project: Goldstone Halls, University of Brighton
Products Used: DrillFast® stainless composite fasteners, SureFast® tube washers, DHK anchors