# Technical Data Sheet

## UNIVERSAL FIXING POINTS

For RBM and PVC

### Axter Universal Fixing Point, the versatile fixing point

The Axter Universal Fixing Point (UFP) for RBM and PVC is a versatile addition to the Axter range. Innovation and excellence in engineering have been utilised to make the new Axter fixing point lighter, smaller and more sustainable, whilst providing the same renowned performance of the existing similar Axter products.

The UFP can be used on both warm and cold roof constructions where a connection to the structure is required, whilst maintaining the total integrity of the waterproofing layer. Axter UFPs are supplied pre-fitted with Axter's bitumen or PVC-p waterproofing membranes to enable full integration with the specified roof waterproofing system.

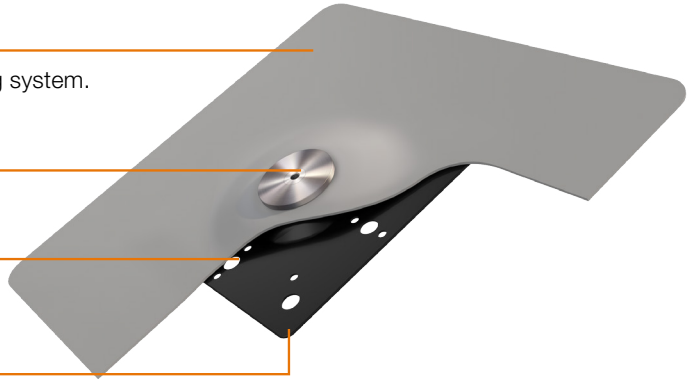
The UFP now has a single threaded receptor to the top of the fixing point enabling connection to virtually any framework. This also helps to simplify and speed up installation as they can be fitted in any orientation.

**Membrane Flange Material**
Compatible with all roofing membranes to match your roofing system. The flange material is factory fitted and sealed.

**Central anchor point**
Stainless steel threaded connection point.

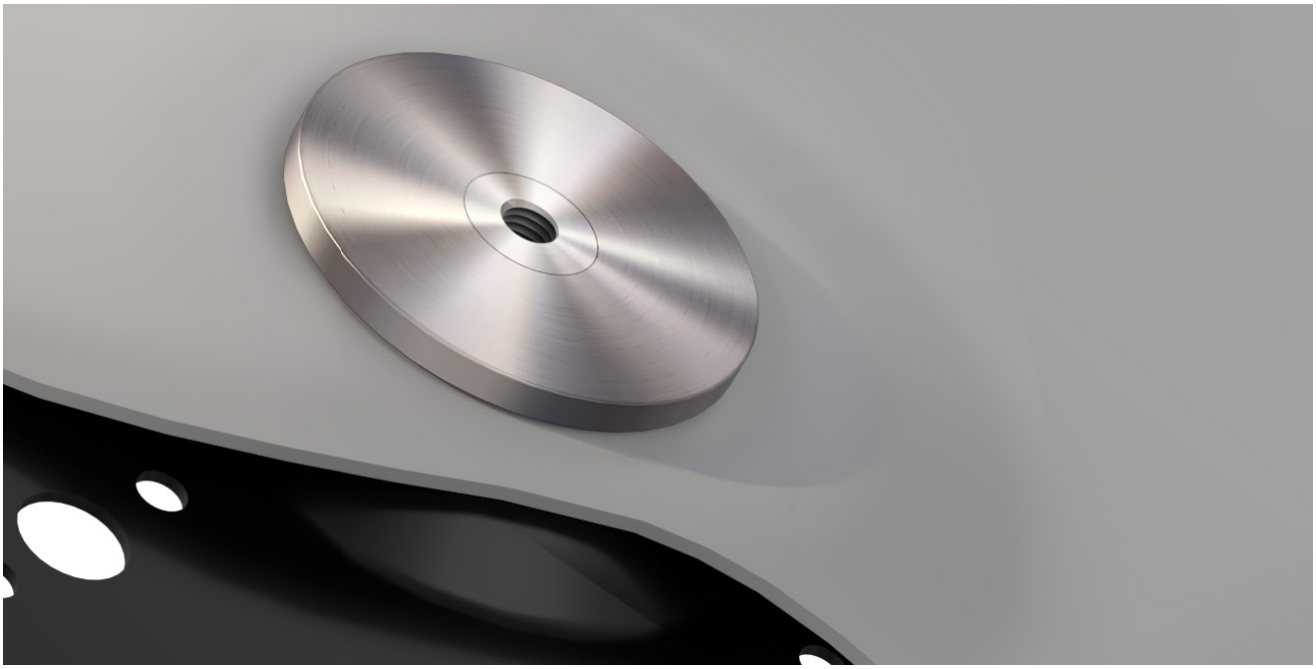
**Fixing Holes**
Multiple fixing holes in different sizes to facilitate different fixing types.

**Fixing base plate**
PPC coated pressed steel fixing plate.



## Axter Universal Fixing Point key benefits

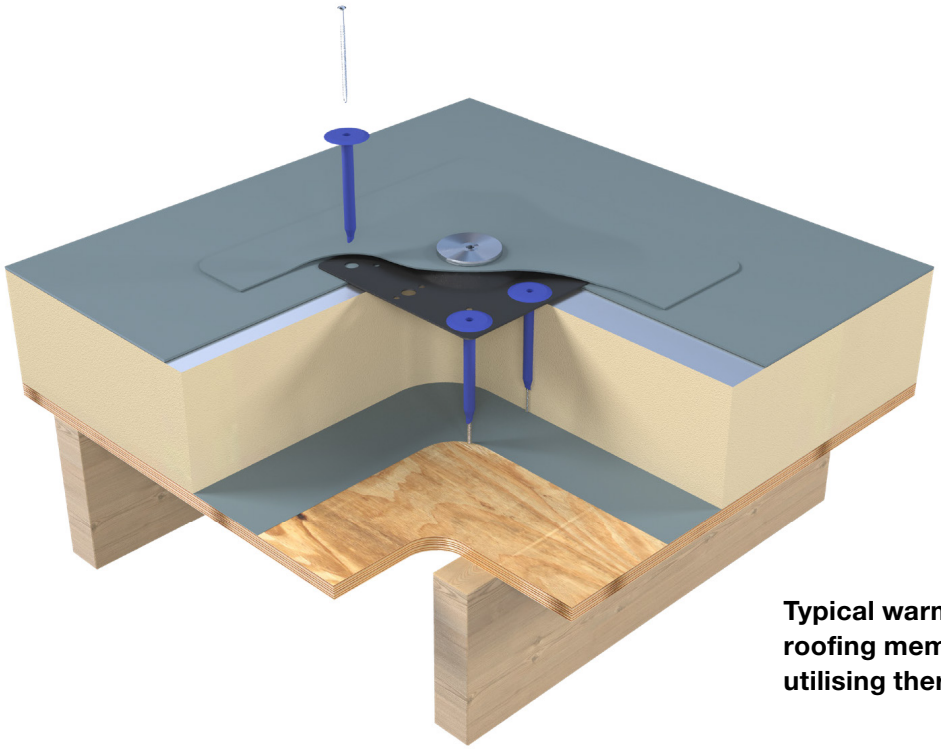
- Low profile. With just 25mm from the finished roof level to the top of the fixing point, the UFP gives an ultra low profile connection. Fixing heights can be increased if necessary by supporting items using studding screwed into the threaded connector.
- Unique, patented membrane protection system. The unique design of the UFP ensures long term use without damage to the membrane flange material. No extra load is applied to the membrane even when vertical uplift and weight loads are applied to the UFP.
- Single central threaded connection. The UFP has a single central threaded M10 anchor point, meaning that the fixing point can be used in any orientation, helping to simplify and streamline installation processes.
- No open thread components. The UFP ensures total ingress resistance. There are no open thread components that can lead to slow, long term water ingress.
- Thermally broken or direct fixings. The UFP can be fixed to the structure with thermally broken or direct fixings, giving excellent thermal efficiency.
- A leader in wind uplift resistance. Exceptionally high wind uplift resistance tested by the British Research Establishment (BRE).
- Direct connection to the structure. Direct connection to the structure ensures no long term reduction in tensile resistance.



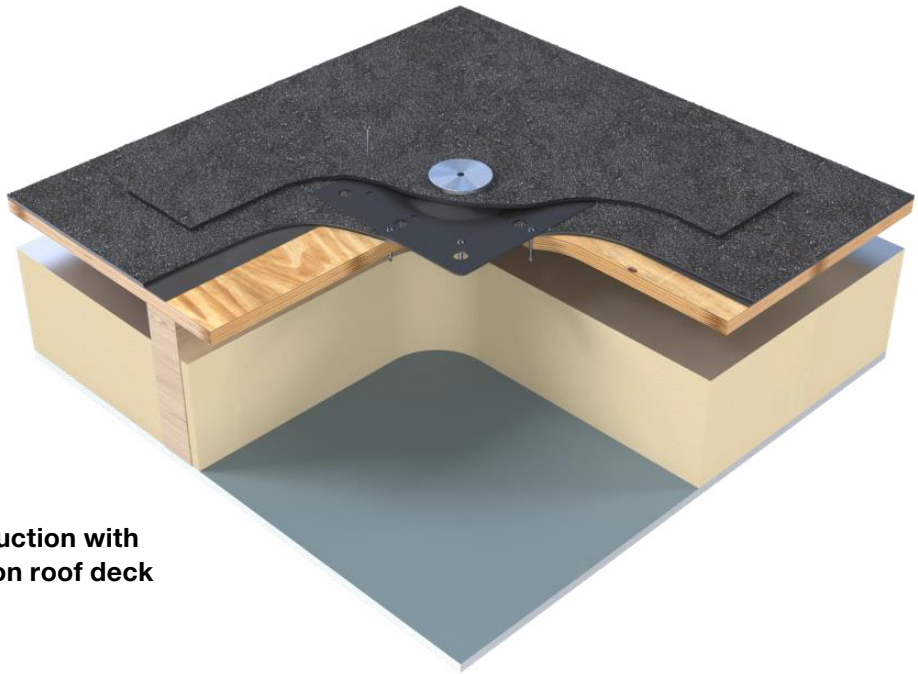
## One fixing plate for multiple roof constructions

The UFP is a versatile unit enabling a single product to be connected to multiple roof constructions. The fixing plate provides opportunity for both thermally broken and direct fixings.

- Cold roof – membrane covered, flat and pitched cold roof constructions.
- Warm roof – membrane covered, flat and pitched warm roof construction.
- SIP (structural insulated panel) construction – membrane covered.
- Insulated panel with membrane covering.



**Typical warm roof construction with roofing membrane laid in insulation and utilising thermally broken fixings.**



**Typical cold roof construction with roofing membrane laid on roof deck utilising direct fixings.**

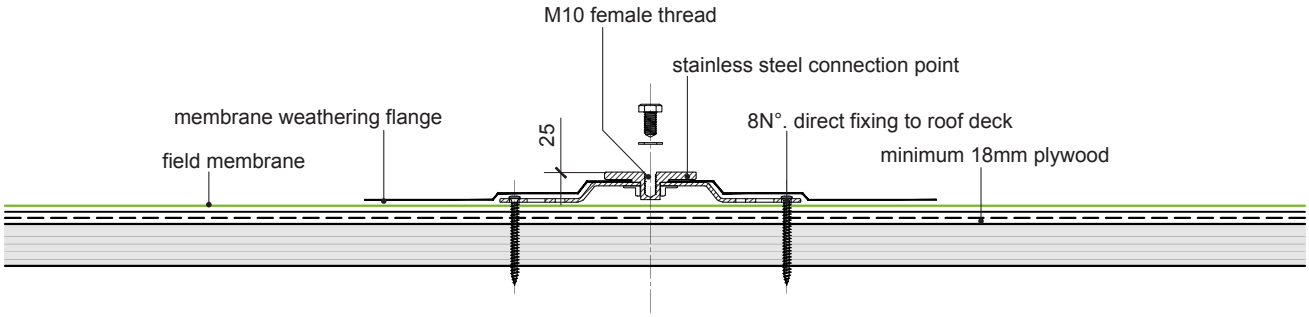
## Membrane flange options

With the addition of the integrated membrane flange, complicated penetration detailing is replaced with a simple lap joint. This helps to ensure a fast, high-integrity installation. Importantly it ensures compatibility with the field membrane.

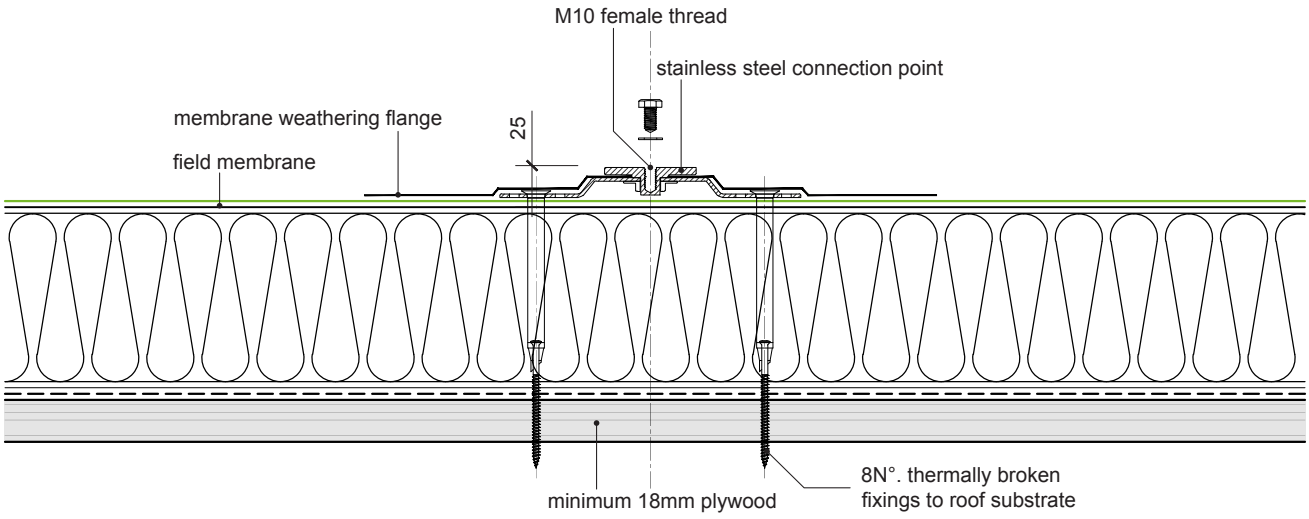
The UFPs can be supplied with Axter membrane options including;

- Ecoflex single ply PVC membrane.
- SBS bitumen membrane.

## Axter UFP - typical roof section fixing details

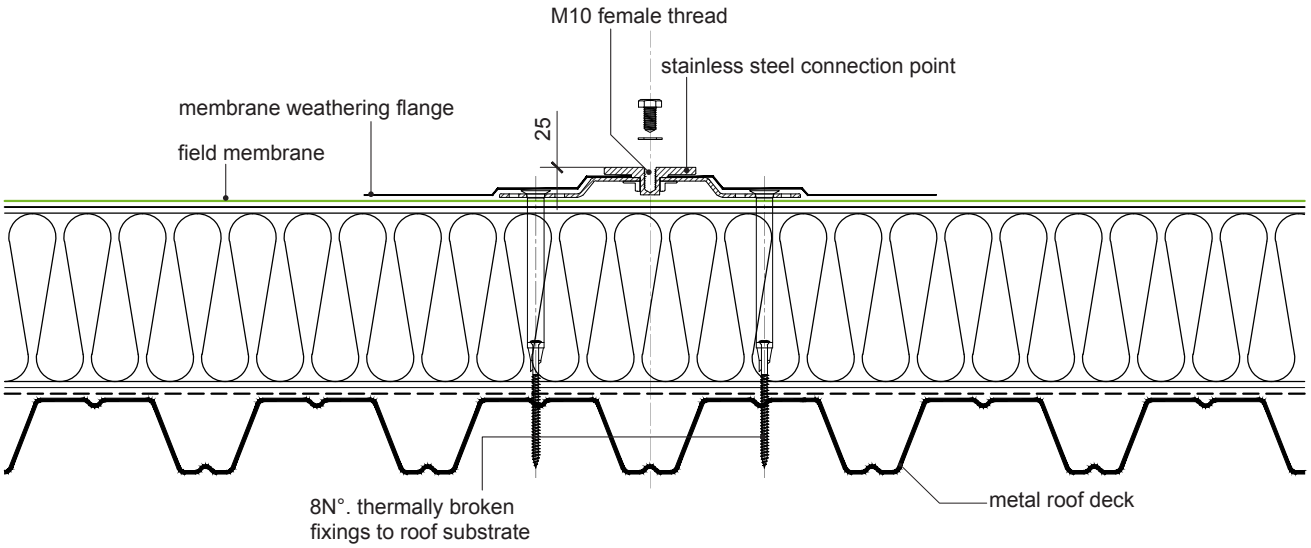



UFP ON COLD ROOF - SECTION VIEW

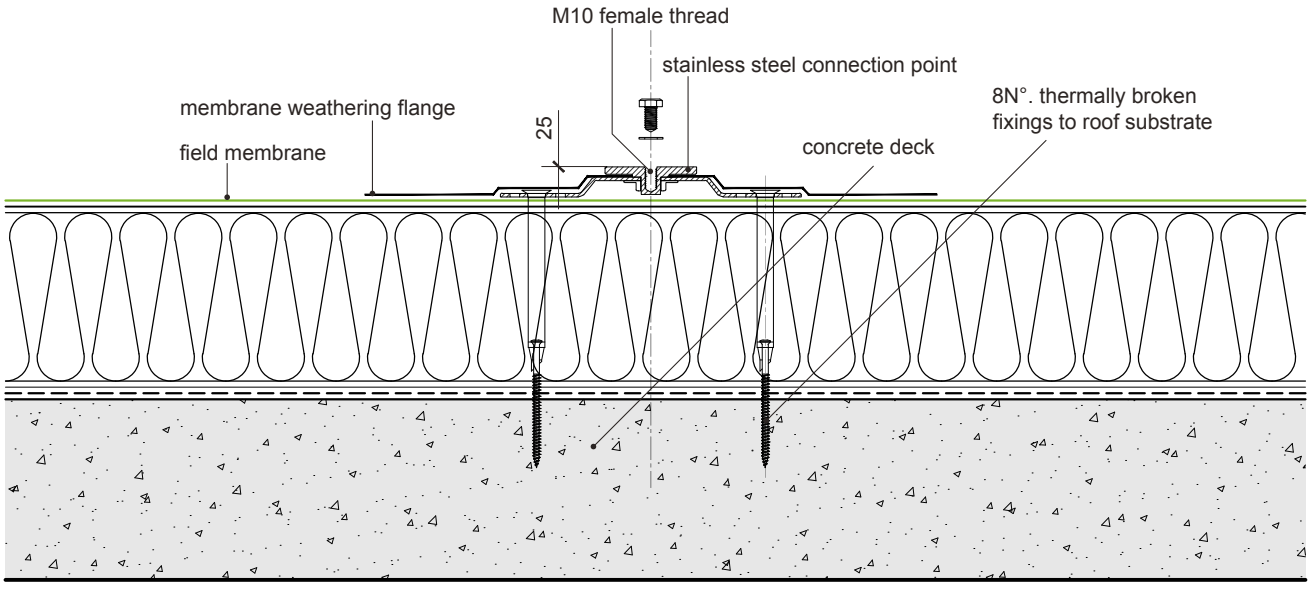



UFP ON WARM ROOF (PLY DECK) - SECTION VIEW

## Axter UFP - typical roof section fixing details



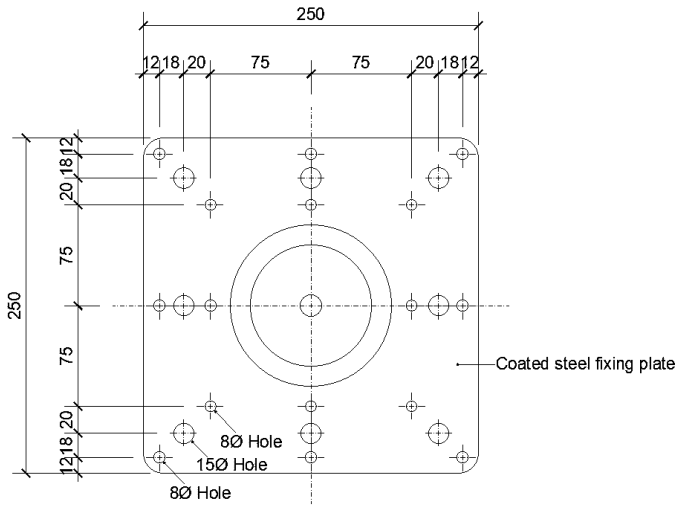

UFP ON WARM ROOF (STEEL DECK) - SECTION VIEW



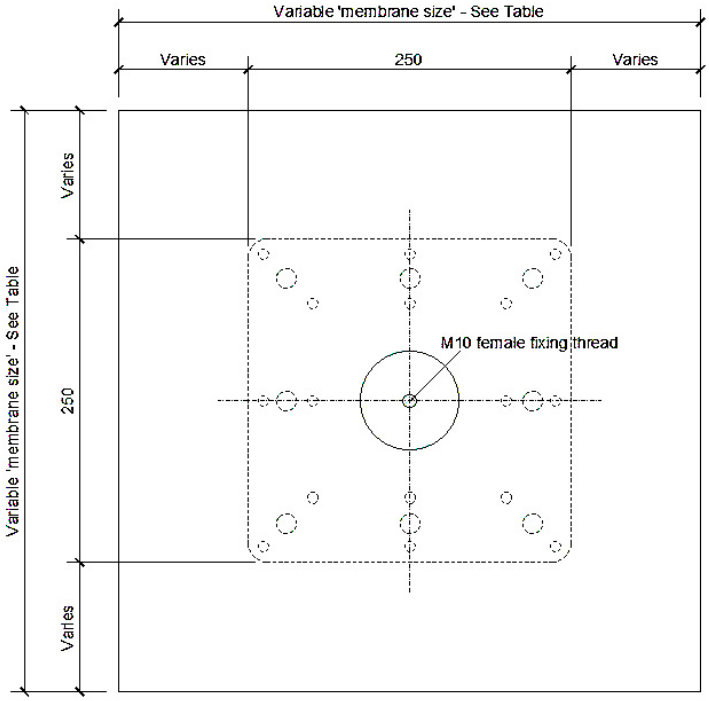

UFP ON WARM ROOF (CONCRETE DECK) - SECTION VIEW

## Axter UFP technical information

| MATERIALS | |
|---|---|
| Base plate | Pressed steel / PPC coating |
| Top connection point assembly | 304 grade stainless steel connection point with 1no. M10 x 20mm female thread |
| Membrane flange | Dependent on roof covering |
| **DIMENSIONS** | |
| O/A height from FRL | 25mm |
| Base plate | 250mm x 250mm |
| Fixing holes | 8no. 8mm Ø for direct fixings |
| | 8no. 15mm Ø for thermally broken fixings |
| Membrane Flange dims | PVC / TPO / EPDM 450mm x 450mm |
| | Bitumen 550mm x 550mm |




UFP FIXING PLATE DIMENSIONS - PLAN VIEW




UFP - PLAN INCLUDING MEMBRANE

## Axter UFP technical information

### Typical uses

The UFP can be used to support and secure axial loads such but not limited to;

- Architectural rain screen cladding framework support.
- Solar panel framework fixation.
- Roof plant supports.
- Decking support details.
- Roof services support.
- Roof walkways fixation detail.

### Exclusions

The UFP is not suitable for inverted, water attenuation, green roof or warm roof constructions with highly compressible insulation. Alternative Axter products are available for such roof constructions.

The UFP should not be used to secure or support non axial loads such as, but not limited to, handrail balustrade or privacy screens. Alternative Axter products are available for such roof constructions. Fitness for purpose is the responsibility of the specifier.

### Installation

The Axter UFP must be fitted in accordance with the manufacturers instructions. The fixing point can be fitted with most membranes however compatibility with the field membrane is the responsibility of the purchaser.

### Warranty

The Axter UFP is covered by Axter Warranty.

### Testing

The Axter UFP is not covered by a UK/EU norm directive but has been independently tested by the BRE to confirm data sheet values.

### Specification

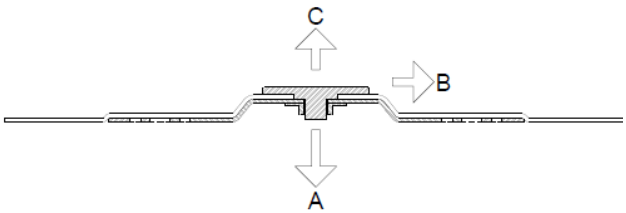
Supply and fit Axter UFP fixing point fitted with Axter membrane flange material to suit roof system. Fixed with direct fixings (for cold or SIP roof) / thermally broken fixings (for warm roof). Axter products available from Axter 01473 724056 / info@axterltd.co.uk

## Axter UFP technical information

Max Compressive Load ‘A’ - 5kN

Max Tensile Load ‘C’ - 5kN

Max Shear Load ‘B’ - 2.5kN




### Permissible Installed Load Table

When installed in accordance with manufacturers fitting instructions and when fixed with recommended fasteners Axter MTP/C-Fixing fastener as per European Technical Approval 15/0406 and allowing a safety factor of three on the combined mean axial pull out value of 8 fixings.

| UFP-RBM, UFP-PVC | SUBSTRATE MATERIAL | FIXING METHOD | FIXING SPECIFICATION | COMPRESSIVE LOAD RATING 'A' | SHEAR LOADING 'B' | TENSILE LOADING RATING 'C' |
|---|---|---|---|---|---|---|
| **Cold roof or fully supported membrane** | 18mm Plywood to EN363 | 8 x Direct | MTP fixing min length 40mm | 5kN | 2.5kN | 5.0kN |
| **Cold roof or fully supported membrane** | 18mm OSB/3 to EN300 | 8 x Direct | Direct MTP Fixing - min length 40mm | 5kN | 2.5kN | 4.2kN |
| **Cold roof or fully supported membrane** | New Concrete substratre C25/30 min 100mm depth | 8 x Direct | C-Fixing - embedment 35mm | 5kN | 2.5kN | 5.0kN |
| **Cold roof or fully supported membrane** | Softwood C16 or CLT min depth 50mm | 8 x Direct | C-Fixing - min embedment 35mm | 5kN | 2.5kN | 5.0kN |
| **Warm roof** | Max 200mm Rigid PIR insulation on 18mm plywood to EN363 or 18mm OSB3 to EN300 | 8 x Thermally broken | I-Washer to suit insulation depth + MTP Fixing - min 12mm to underside of substrate board | Assumes min static load rating 30kPa Insulation - 1.8kN | Assumes rigid PIR insulation 2.5kN | 4.1kN |
| **Warm roof** | Max 200mm Rigid PIR insulation on new C25/30 concrete substrate min 100mm depth | 8 x Thermally broken | I-Washer to suit insulation depth + C-Fixing - 35mm embedment | Assumes min static load rating 30kPa Insulation - 1.8kN | Assumes rigid PIR insulation 2.5kN | 4.1kN |
| **Warm roof** | Max 200mm Rigid PIR insulation on min 0.7mm steel trapizoidal substrate | 8 x Thermally broken | I-Washer to suit insulation depth + MTP Fixing - min 15mm to underside of steel | Assumes min static load rating 30kPa Insulation - 1.8kN | Assumes rigid PIR insulation 2.5kN | 4.1kN |
| **Warm roof** | Max 200mm Rigid PIR insulation on min 0.7mm steel trapizoidal substrate | 6 x Thermally broken | I-Washer to suit insulation depth + MTP Fixing - min 15mm to underside of steel | Assumes min static load rating 30kPa Insulation - 1.8kN | Assumes rigid PIR insulation 2.5kN | 3.1kN |
| **Kingspan KS1000TD Topdeck panel** | Rigid insulation on 0.5mm steel inner profiled skin | 8 x Thermally broken | I-Washer to suit insulation depth + MTP Fixing - min 15mm to underside of steel | Assumes min static load rating 30kPa Insulation - 1.8kN - Subject to roof structure. TBC | N/A | 1.9kN |

**Notes**

1. Load values calculated on specified fixings and allow a safety factor of three on combined characteristic pullout values.
2. Axial loads only - not suitable for non-axial applications or any load resulting in rotational forces.
3. It is the purchasers or specifiers responsibility to check that the insulation will bear any compressive load without compression. Seek insulation manufacturers advice if in doubt.
4. Shear values for warm roof applications assume 150mm insulation and using 8no. Thermally broken fixings.
5. Compressive load values for mineral wool insulation to be checked on a per project basis.
6. Onsite testing may be required for existing concrete roof structures.

NA: Not applicable due to use of product.

NPD: No performance determined.

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