
NURALITE FIXING PLATE TECHNICAL DATA SHEET

Description and Application Fields

The **Nuralite Fixing Plate** is supplied as a factory assembled unit pre-fitted with the correct membrane enabling full integration with the **Nuraply** roof system it is being installed on.

It provides a universal fixing offering two M10 x 20 female threaded anchor points for supporting and securing most types of rails and bars. Multiple fixings can be made directly to the roof structure providing excellent pull out values into most substrates.

All the fixings are sealed under the flange against water ingress.

The **Nuralite Fixing Plate** can be used on all Nuraply membranes.

The roof area is an ideal area to site many parts and components of the building's mechanical services equipment that are essential to the building use.

These components include air conditioning units, condensers, chillers, general roof plant, pipework and solar panels. Any effort to fix these items to the roof structure involves a potential threat to the integrity of the roof covering. Solar panels in particular, due to their size and location, are vulnerable to wind forces.

Nuralite Fixing Plate Installation

The **Nuralite Fixing Plate** is to be fitted over the completed **Nuraply** membrane system. Where for loading purposes it has been established that the **Nuralite Fixing Plate** should be positioned over structural elements such as rafters or purlins, these should be identified and the **Nuralite Fixing Plate** set out and located accordingly. The **Nuralite Fixing Plate** should be positioned on the roof taking into account the constraints of any framing system that will be fitted to them. Particular care should be taken to get the orientation of the two points correct as this cannot be adjusted once the **Nuralite Fixing Plate** has been installed.

Fixing on cold roof construction, ensure that the fixings used will penetrate the **Nuraply** membrane and the roof deck below in accordance with the manufacturers tolerances. Use all available fixing holes to achieve the maximum pull-out value.

Fixing on timber and concrete warm roof construction, ensure that the fixings used will penetrate the **Nuraply** membrane and the roof deck below in accordance with the manufacturers tolerances. Use all available fixing holes to achieve the maximum pull-out value.

Fixing on metal tray warm roof construction, the fixings **MUST** only be into the crown of the profile. Care must be taken to identify and locate the positions of the crowns before fixing commences.

Membrane Installation

Nuraply 3PM: Once the **Nuralite Fixing Plate** has been correctly installed, the **Nuralite Fixing Plate** is to be primed with Nuraflux primer (refer to the Installation Manual). 70mm² **Nuraply Alu** self adhesive patches are to be bonded over all fixings, then the **Nuraply 3PM** can be heat welded down (refer to the Installation Manual). A selvedge edge must be created out around the fixing plate 150mm.

Nuraply EverGuard TPO Smooth: Once the **Nuralite Fixing Plate** has been correctly installed, the **Nuralite Fixing Plate** and the underside of the **Nuraply EverGuard TPO Smooth**, out to the edges of the plate is to have **Nuraply EverGuard TPO Bonding Adhesive 1121** applied. (refer to the Installation Manual). 70mm² **Nuraply EverGuard TPO Smooth** patches are to be bonded over all fixings. Bond the **Nuraply EverGuard TPO Smooth** down to the **Nuralite Fixing Plate**. Weld the **Nuraply EverGuard TPO Smooth** from the plate out (refer to the Installation Manual).

Technical

Static loadings in Kg. Nuralite Enertherm PIR has a static load rating of 40Kpa

| | | | | | |
|--|-------|-------|-------|-------|-------|
| Insulation manufacturers long term static load ratings* | 20Kpa | 30Kpa | 40Kpa | 50Kpa | 60Kpa |
| Nuralite Fixing Plate loading capacity per post in Kg | 125Kg | 187Kg | 250Kg | 312Kg | 375kg |

Typical uplift values in kN**

No of fixings per unit (safety factor of 3)

| Substrate type | Thickness | kN per fixing | 4 x fixings | 6 x fixings | 8 x fixings |
|-------------------|----------------|---------------|-------------|-------------|-------------|
| Steel decking | 0.7mm | 1.6 | 2.1kN | 3.2kN | 4.2kN |
| | 0.9mm | 2.2 | 2.9kN | 4.4kN | 5.0kN |
| | 1.2mm | 2.7 | 3.6kN | 5.0kN | 5.0kN |
| | 1.6mm | 4.0 | 5.0kN | 5.0kN | 5.0kN |
| Plywood | 18mm | 2.2 | 2.9kN | 4.4kN | 5.0kN |
| OSB | 18mm | 2.2 | 2.9kN | 4.4kN | 5.0kN |
| Softwood boarding | 25mm | 3.4 | 4.5kN | 5.0kN | 5.0kN |
| Softwood joist | 35mm embedment | 4.1 | 5.0kN | 5.0kN | 5.0kN |
| Concrete | 25mm embedment | 4.1 | 5.0kN | 5.0kN | 5.0kN |

Unit weight (approx.)

Nuraply 3PM: 3.65Kg

Nuraply EverGuard TPO Smooth: 3.4Kg

- *Consult insulation manufacturer for static load rating
- **Based on the Fixfast HD-6.1 range of fasteners. The above values are typical test results and do not include safety factors and intended as a guide only. On-site pullout tests should be carried out to determine the actual uplift values.

Storage

Nuralite Fixing Plate can be stored for 5 years at 5 - 35°C in a dry storage place protected against sunlight.

Safety

All regulations applicable to working at height, flammable liquids, flame and general roof work should be followed. Once the **Nuralite Fixing Plate** is installed it can pose a trip hazard. Use a warning sign and position so that the site operatives are warned before entering that particular area.

Transport Classification

N/A

The information in this product data sheet is based on our experience and testing. It represents the latest information available at the time of printing, but no guarantee of its accuracy is made or implied, nor responsibility taken for use to which this information may be put. We reserve the right to alter or up-date information parameters and formulations at any time without notice.