

Viking EJOTBAR TPO 2G Mounting Bar

Viking Roofspec Supplier Code: STP223
Version: 1.3

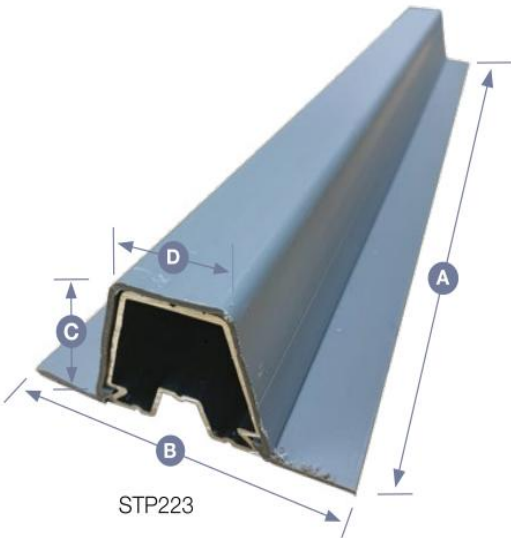
Introduction:

This Data Sheet is a reference guide for Viking Roofspec Licensed Installers who are familiar with Viking Roofspec's systems and are responsible for Viking roof-system installations.
The following guide contains precautions, best uses and application procedures for the correct installation of EJOT Mounting Bar

Vikings EJOBAR TPO 2G Mounting Bar (TPO weldable) is a simple-fix solution for Viking Enviroclad TPO membrane roofs.
To be used for securing or carrying mechanical & electrical essentials in place of a plinth without the need to put fixings through the membrane.
The EJOBAR TPO 2G Mounting Bar may be used to support solar PV and thermal installations where a suitably qualified person (engineer) will need to determine proper EJOBAR location centres and fixings for site specific wind pressures and roof loads. **EJOTBAR 2G is limited by Enviroclad 6.5kPa ULS** where fully adhered to plywood or concrete, additional mechanical fixings are required for the membrane in Warmroof applications.
The EJOBAR TPO 2G Mounting Bar is to be hot air welded by a Viking Licensed Installer directly to the Viking 1.52mm Enviroclad membrane.

Properties

Product Code	Description	A	B	C	D
STP223	Mounting Bar	3000mm	100mm	40mm	30mm
STP224	End Cap	N/A			
	EJOTBAR Alloy Core	2mm 6063 T5 with UTS 175Mpa to EN 755-2			
	EJOTFAST Screw JF3	5.5 x 25mm JF3 Stainless steel (A2) EN ISO 3506			



Uplift result:

- 2.7Kn per 150mm length (18Kn per Lineal Metre ULS).
- Engineer must confirm project specific design loads and wind pressures.
- JF3-5-5.5 x 25 S16 Fastener is tested to 1.63kN for pullout resistance into 165Mpa aluminium. A suggested partial safety factor of 1.33 -> $1.63/1.33 = 1.23$ a design resistance of 1.23kN per specified fastener.

Installation

1. The EJOBAR TPO 2G Mounting Bar must be laid in the same direction of the roof fall rather than across the slope to avoid any ponding of rainwater. Suitable for pitches up to 20 degrees.
2. If installing over 1.14mm Enviroclad then fully weld an addition 180mm wide strip of 1.52mm Enviroclad to the roof deck for the EJOBAR TPO 2G Mounting Bar to be installed onto.
3. The underside of the EJOBAR TPO 2G Mounting Bar and Enviroclad membrane area that will receive it must be properly cleaned using Viking Weathered Membrane Cleaner (STP001).
4. Installed onto the membrane by hot air welding the full perimeter while pressing the EJOBAR TPO 2G Mounting Bar firmly into place. Use a seam-roller to ensure good all-round connection to the membrane.
5. *The EJOBAR TPO 2G Mounting Bar **must not** be positioned cross the membrane sheet lap seam. Keep a minimum 25mm from either side of a welded join. *If this must be done, then weld an additional seam next to the lap with T-Joint covers used at the Lap-seam transition to ensure these are well sealed.*
6. Do not install EJOBAR TPO 2G Mounting Bar over the seam, without using an additional membrane cover strip with T-Joint cover detailing.



General requirements for installation of solar and specialist applications

- EJOTBAR 2G Layout, typically for roof external corners and perimeters, the bars should be positioned at a maximum of 500mm centres, and a maximum 940mm in the inner field area.
- A support frame must be secured to the EJOTBAR 2G with JF3-5-5 5.5 x 25 fasteners prior to panel installation.
- EJOTBAR 2G must extend the full length of the panel system.



- A wind load calculation must be carried out by a qualified designer or engineer to determine correct fixing centres of the EJOBAR TPO 2G Mounting Bars.
- The roof needs to be checked by an engineer for suitability for the additional loadings of a solar system.
- For **Warmroofs**, a line of fasteners with Rhino Plates (VWR005) or Polyiso Plates (VWR006) must be fixed where the EJOBAR TPO 2G is to be positioned. A wind load calculation will determine the required centres of those fasteners. **Not for Plywood or Concrete.**
- For **Warmroofs**, a 180mm wide strip of 1.52mm Enviroclad membrane, should then be hot air welded over the top of the fasteners and plates for the EJOBAR TPO 2G to be welded to. **Not for Plywood or Concrete.**
- The EJOBAR TPO 2G Mounting Bar must extend the full length of the panel system i.e. extend the width of the panel system.
- Only suitable for pitches up to 20 degrees
- JF3-5-5 5.5 x 25 fasteners can be installed in either the top or through the side of the Ejotbar 2G

Precautions

- A wind pressure calculation must be carried out by a qualified designer or engineer to determine correct fixing centres of the EJOBAR TPO 2G Mounting Bars.
- Do not install EJOBAR TPO 2G Mounting Bar over the seam, without using an additional membrane cover strip with T-Joint cover detailing.
- EJOBAR 2G needs to be laid in the same direction of the roof fall rather than across the slope to avoid any ponding of rainwater.
- The roof needs to be checked by an engineer for suitability for the additional loadings of a solar system.
- When installing solar panels, the EJOBAR TPO 2G Mounting Bar must extend the full length of the panel system.
- Typically, for the external perimeter and corners, the bars should be positioned at 500mm centres, and 940mm in the inner field area.
- A support frame must be fixed on top of the EJOBAR TPO 2G Mounting Bar prior to panel installation. No fixings from the frame should penetrate the waterproofing membrane.
- Only suitable for pitches up to 20 degrees.
- Fixings to be installed no closer than 20mm to the end of a EJOTBAR 2G length.

Storage

Handling and storage of all materials whether on or off site is under the control of the Viking Roofspec Licensed and Trained Installers. Dry storage must be provided for all products, do not let products get crushed under weight of stacking pallets on top of each other.



EJOT EJOBAR TPO 2G Good practice guide for hot air welding to TPO membranes

The sequence below provides a good practice guide when welding the EJOBAR TPO 2G system to Enviroclad TPO membranes.



1. Accurately measure and mark out the EJOBAR TPO 2G installation area.



2. Clean surface with Viking Weathered Membrane Cleaner (STP001).



3. Apply fasteners for the application at centres determined by a Wind-Load Calculation.



4. Prepare 180mm wide 1.52mm Enviroclad cover-strap rounding the ends, 100mm longer than the bar.



5. Hot-weld the 180mm wide membrane cover-strap to seal over the fixing line, taking pressure off the existing membrane.



6. Hot-weld EJOBAR TPO 2G in the centre of the membrane, directly over the line of fasteners.



7. How a single EJOBAR TPO 2G looks in position.



8. How the completed system will look.

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