

INTRODUCTION

Tools and personal protective equipment

The following tools will be needed to install Fatra membranes correctly:

For Welding

- 110v Hot air welding gun (Leister Triac or similar)
- 20mm welding nozzle
- 20mm 60° nozzle (for detailing)
- Wire brush for cleaning
- 28mm Teflon-coated roller (for main welding)
- Brass 'Penny' roller (for internal angles)
- Seam probe (for testing welds)
- An automatic welder can be used
- FF856 liquid sealant bottle and spout

For Fixing

- Screw gun (110v)
- Correct driver and bits

For Detailing

- Scissors (not knives) for trimming membrane
- Metal snips (for trimming Fatrametal)
- Toothed metal spreader for FF855 adhesive
- Short-haired lamb's wool roller for FF859 adhesive or FF861
- Tape measure
- Ruler
- Chalk line

For Finishing

- Soft broom or squeegee for smoothing membrane
- Water-filled roller for smoothing FF807 membrane
- Lint-free cleaning cloths
- FF860 membrane cleaner

The following PPE is suggested to be the minimum required:

- Foot Protection - Boots to EN 20345
- Hand Protection - Heat and chemical resistant gloves
- Head Protection - Helmet to EN 397
- Eye Protection - Spectacles or goggles to EN 166 class 1
- EN 471 high visibility waistcoat

Other PPE may be required as indicated by a Risk Assessment.

Basic Requirements

OVER LAP – The membranes must overlap by 50mm minimum.

WELD WIDTH – A minimum of 30mm.
WELDING TEMPERATURES – Welding of Fatra PVC is carried out at a nozzle temperature of 450 to 550°C. Fatra recommend the use of welding guns that have a digital temperature control.

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Pre-weld

Pre-weld to the rear of the overlap using the heat gun and immediately closing the seam with the silicon roller, crossing over the lap in a diagonal motion. This closes the lap to produce the air seal. Use a heat gun and a 20mm flat nozzle. Seam areas must be clean and dry.

Tacking

On occasions there may be a need to lightly tack the membrane. This is to the rear of the 50mm overlap within the line of the pre-weld at 500mm centres approximately. A tack is not a weld, it can be removed.

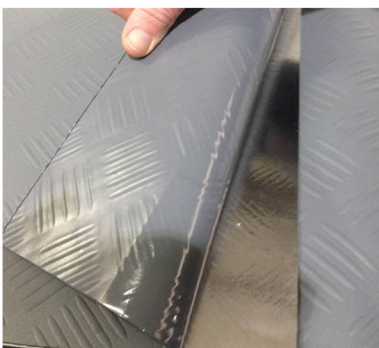


Final weld

After the pre-weld place the tool under the overlap leaving 5mm projecting out from the edge. Continually roll back and forth diagonally across the edge of the lap and down the full length of the seam producing the final homogeneous weld and the weatherproof seal.

Probing

After the welded seams have cooled they must be visually checked for a thin dark line of extrusion from under the membrane and mechanically tested by running a steel hand probe along the joint by applying pressure to the seam at all times. If any weak welds are found, then peel the membrane back to fully open and re-weld with the hand gun.



Tear tests

Before carrying out any welding on the roof check that the tool is at the correct temperature by welding several membrane strips together. When cooled, cut 25mm wide strips to carry out a tear test. Take the sample strips and tear them apart across the weld width. If the membrane has achieved a full homogeneous seal it will rupture outside the weld.