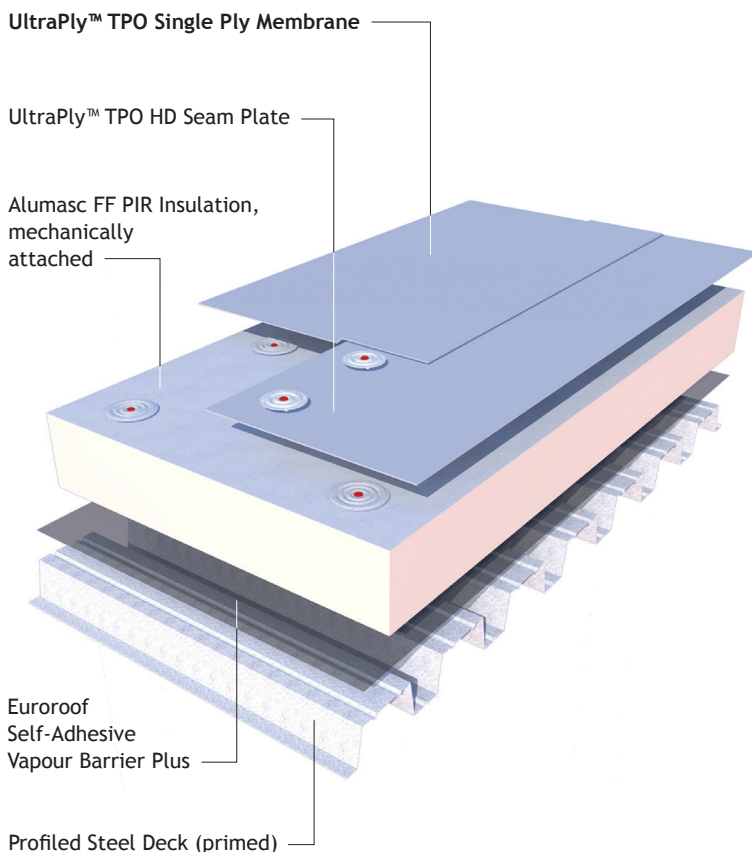


Mechanically Fixed Single Ply TPO Roofing

✓ When to Specify

The Firestone UltraPly™ TPO Mechanically Attached System offers a highly reflective, lightweight, single-ply waterproofing solution that can be used wherever the roof deck is appropriate for mechanical attachment and is equally suitable for both new-build and roof refurbishment projects.

Firestone
BUILDING PRODUCTS
NOBODY COVERS YOU BETTER.®



☀ Warranties

Alumasc offers a comprehensive range of warranty options. The typical warranty period for Firestone UltraPly™ is 20 years. Installed exclusively by Alumasc Firestone Authorised or Licensed Contractors and underpinned by Alumasc's extensive project support service. Independent insurance backed latent product defect warranties are also available through FSA licensed brokers.

Key Features

Lifespan

Firestone UltraPly™ TPO is a high-performance, reinforced, flexible polyolefin membrane with a service life expectancy in excess of 20 years.

Certification

Firestone UltraPly™ TPO is the holder of European Technical Approval (ETA) No 07/0262.

Reflectivity

The light coloured surface of the UltraPly™ TPO membrane reflects sunlight before it can be absorbed and converted into heat energy, thereby improving the energy efficiency of the building.

Performance

The membrane is formulated from a combination of ethylene-propylene rubber with polypropylene, offering excellent resistance to UV degradation. The weft scrim reinforcement affords high durability in-service and excellent resistance to wind uplift. Firestone UltraPly™ TPO membranes are designed to perform in the harshest conditions and the plasticiser-free formulation remains flexible even after many years of UV exposure.

Cost-effective

Firestone UltraPly™ TPO requires little or no maintenance. Even after years of exposure, if damaged the membrane can simply be repaired. Combined with the inherent durability and competitive installed cost of UltraPly™, this results in a low life-cycle cost.

Quality

Firestone UltraPly™ TPO membranes are manufactured and independently assessed against the BS EN ISO 9001:2008 Quality Management Standard; ensuring the highest possible consistency of product performance.

Environment

Manufactured in accordance with the ISO 14001:2004 Environmental Management Standard, Firestone UltraPly™ TPO can benefit BREEAM ratings (e.g. Section MAT5 for the responsible sourcing of materials) and contribute to a 'very good' rating in the BRE's Green Guide to Specification (an 'A+' rating is achievable when installed on timber or metal decks).

Mechanically Fixed Single Ply TPO Roofing

Application

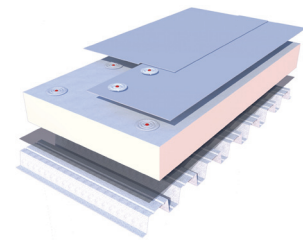
1. Tape joints and prime the metal deck with Eurorof Contact Adhesive immediately prior to installing the vapour barrier.
2. Roll out and align one layer of Eurorof Self-Adhesive Vapour Barrier Plus, providing for 75mm side and 100mm end laps. Remove the release film and firmly pressure roll the surface and laps to ensure adhesion.
3. Install Alumasc FF polyisocyanurate insulation, thickness to achieve the target thermal value, secured by mechanical fasteners and plates at a rate and in a pattern as specified, and to resist wind uplift as defined in Eurocode 1: BS EN 1991-1-4:2005.
4. Place the Firestone UltraPly™ TPO roll as close as possible to its final position. Position adjoining sheets with a minimum side overlap of 150mm and overlap the end of adjoining sheets a minimum of 75mm. Allow the membranes to relax a minimum of 30 minutes before attachment or splicing.
5. The Firestone UltraPly™ TPO membranes will be mechanically attached to the roof deck using an approved combination of fasteners and plates. The fasteners are positioned 50mm in from the seam edge and made waterproof using the overlap of the adjoining Firestone UltraPly™ TPO membrane. The frequency of fasteners will be calculated in accordance with Eurocode 1: BS EN 1991-1-4:2005 to resist wind uplift.
6. All lap splices need to be hot air welded. Wherever possible, all field splices on the horizontal surface (including flashing) should be completed using an automatic heat welder that has been designed for hot air welding of thermoplastic membranes. Handheld welders should only be used on vertical welds or where an automatic is not practical or cannot be used. Seams made with an automatic welder must be a minimum of 38mm wide. Seams made with hand welders must be a minimum of 50mm wide.
7. The Firestone UltraPly™ TPO membrane should be mechanically attached at all locations where the membrane ends or passes through an angle change greater than 15%, such as roof edges, curbs, interior walls, around roof penetrations, etc.
8. At upstands, the Firestone UltraPly™ TPO membrane will be fully adhered, ensuring that the waterproofing extends at least 150mm above the finished roof surface. The head of the detail must be terminated with a suitable mechanical termination.
9. Detail work to be in accordance with the project specification and the Firestone Technical Guidelines.

NB: Firestone UltraPly™ TPO single ply roofing systems may only be installed by Firestone Authorised and Licensed Contractors that have been trained and approved in the installation.

*The company pursues a policy of constant product development and information contained in this publication is therefore subject to change without notice.
The customer is responsible for ensuring that each product is fit for its intended purpose and that the conditions for use are suitable. All quoted data is nominal and subject to production tolerances.*

System Components

- Firestone UltraPly™ TPO Reinforced Single Ply Roofing Membrane is available in 1.2mm, 1.5mm and 1.8mm thicknesses, and roll sizes of 1.5m x 30.5m and 2.0m x 30.5m. Colour options: white, light grey and tan.
- Firestone UltraPly™ TPO HD Seam Plates and heavy duty fasteners are used to mechanically secure the membrane as required by the specific detail. Type and selection dependent on the specification and substrate used.
- Alumasc FF is a CFC- and HCFC-free polyisocyanurate thermal insulation with foil facing to both faces and is supplied in 600 by 1200mm boards and a range of thicknesses to suit the required thermal value.
- Eurorof Self-Adhesive Vapour Barrier Plus is a high performance vapour barrier, manufactured from 2.5mm thick modified bitumen and contains an integral glass-fibre reinforcement. On the underside, a polyethylene release film covers the self-adhesive coating that will provide a strong bond with the substrate.



Technical Support

Alumasc Technical Services provide an extensive project support service that includes site surveys, project specifications, performance calculations (e.g. U-values, condensation risk analysis), CAD detail drawings and general technical advice.

Contact Alumasc Technical Services via:

☎ +44 (0) 1744 648400

✉ waterproofing@alumasc-exterior.co.uk

Online resources are available on our website or via the embedded links below:

Web Links

- 📄 [Brochures & Datasheets](#)
- 📄 [NBS Specifications](#)
- 📄 [CAD Drawings for typical details](#)

www.alumascwaterproofing.co.uk