

DURO TPO FB

Non-reinforced Fleece-backed Thermoplastic Polyolefin.

DESCRIPTION

Duro TPO FB is manufactured from flexible polyolefin, and contains no plasticizers, making it compatible with bituminous membranes, asphalt, steel profile sheeting, and other single ply systems. It has a non-woven polyester fleece on the underside.

Duro TPO FB may be fully adhered, mechanically fixed, loose-laid, or ballasted.

Duro TPO FB resists root attack and has a high resistance to chemical and biological attack (moulds, micro-organisms) as well as hail damage.

Duro TPO FB has a low environmental impact over the entire product life cycle, making it environmentally friendly.

Duro TPO FB complies with the BBA (British Board of Agreement).

Guaranteed Quality

The Duro TPO range is manufactured under ISO 9001 Total Quality guidelines.

Use Areas

- Waterproofing membrane suitable for roofs (ballasted and, in certain conditions, mechanically attached)
- Water reservoirs, foundations and planters
- Waterproofing membrane suitable for flat and pitched coverings in domestic and industrial buildings.
- Flat roof refurbishment over existing bituminous membrane.



ADVANTAGES

- Low environmental impact over the entire product life cycle.
- Long-term chemical stability. Does not contain migrating plasticizers.
- No contamination of run-off rain water.
- No emissions to potable water (TPO membranes are widely used for drinkable water storages, fish farms, food & packaging industries).
- No chemical risk associated with production and processing procedures.
- Does not contain chlorine (no danger of dioxin being released if the material is incinerated).
- No toxicity to humans. User friendly.
- During hot air application the sole material emissions are water vapour and CO₂.
- No emission to the soil. All materials used in TPO membranes (including the identification tapes) are recyclable.
- High environmental performance. TPO's light grey surface offers high solar and heat reflection, thus saving on air-conditioning costs.
- TPO membranes can also be used in a system for recycling of rain water, for sanitary facilities.

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SURFACE PREPARATION

- The surface must be clean and dry, if the parts to be overlapped are soiled with dust, they must be cleaned with an aqueous solution of liquid detergent, rinsed and dry.
- As the membrane will oxidise once in contact with the atmosphere, it must be cleaned prior to welding.

Application

Fully-adhered over existing Bituminous Felt or Asphalt (un insulated)

Unroll onto the substrate, without ripples, and with a 60mm overlap. Fold back the **TPO** and apply the **Duro Anchorweld Solvent Adhesive** to the membrane and substrate at a rate of 4-5 sqmtrs/ltr. Allow to dry until tacky and apply pressure. All side and end laps must be fused using an automatic hot air welder.

Loose-Laid, Ballasted and Protected Roof Systems

Unroll onto the substrate, without ripples, with a 60mm overlap and mechanically fasten at perimeters. A suitable protection layer must be placed over the membrane, prior to a minimum of 50mm of ballast or paving being laid.

Jointing & Flashing

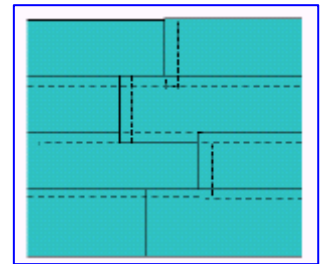
All joints must be sealed with a hot air gun. The area should be clean and dry, and if oxidization has occurred, it will need to be cleaned. The welded width of the joint must be a minimum of 60mm. Care should be taken not to over-heat the membrane, otherwise, scorching and carbonization will result. The seam should be tested and any weakness immediately repaired.

Perimeter

Perimeter fixing and sealing can be achieved by mechanical fixing of metal profiles to the upper edge of the TPO followed by a suitable silicone sealant.

Final Weld

Insert the nozzle of the hot air welder into the overlap, at an angle, of approx 45° to the bonding line. Advance at a constant rate, applying pressure along the weld using a roller. Direct the roller pressure at right angles to the direction of the air flow, but do not apply pressure away from the nozzle. A constant 1-2mm bleed of molten **TPO** is indicative of a good seal. At the completion of each stage a flood test should be carried out for at least 24 hours.



Final Weld

TECHNICAL SPECIFICATION

Test Method	Features	UOM	Nominal Values
EN 1848-1	Length	m	1.5
EN 1848-1	Width	m	35
EN 1849-1	Thickness	mm	1.2mm
EN 1107-2	Dimensional Stability-long	%	-.01
EN 12311-2	Tensile Strength long	N/50mm	>1000
	Tensile Strength trans	N/50mm	>800
EN 12311-2	Elongation at break longitudinal	%	4.5
	Elongation at break transversal	%	4.5
MOAT 67 4.3.11	Tear Resistance L/T @18°C	N	606.8
EN 1109	Cold Flexibility	°C	-60 °C
EN1110	Heat Resistance	°C	130 °C
BS 3177	Water Resistance	MNsg ⁻¹	977

Durotech Industries : 14 Essex Street, P.O Box 5092, Minto, NSW 2566
 PH: +61 2 9603 1177 Fax: +61 2 9603 3796 **Technical: 1300 791 177**
 Email: sales@durotechindustries.com.au Web: www.durotechindustries.com.au

DUROTECH

The information provided in this technical bulletin is as correct in detail as possible and is intended to give a fair description of the product and its capabilities. In practice, the substrate and environmental conditions vary widely, making it essential for the user to determine the products suitability for a particular application and that the product is not used beyond its physical limitations. The product is guaranteed providing that it is applied in accordance with the manufacturer's instructions as stated in this data sheet and any relevant Standard as Code and provided that the building and installation is structurally sound. Durotech terms and conditions of sale apply.