

UNIROOF®

Hypalon

SHEET MEMBRANE

**FULLY BONDED
LOOSE LAID AND INVERTED
OR
MECHANICALLY FASTENED**

UNIROOF INTERNATIONAL specialise in the manufacture of a full range of flexible roofing and waterproofing systems and are therefore able to recommend a product best suited to specific needs. **UNIROOF REINFORCED MEMBRANE** was developed primarily for use in inverted and exposed roof designs, or for use in water containment applications. Project references date back to 1970.

Key benefits

The sheet is based on Hypalon® - a premium synthetic rubber with a proven record of outstanding resistance to weathering, ozone, ultra violet light and aggressive chemicals. The Hypalon® rubber compound is laminated between a polyester reinforcement layer which gives it stability for loose laid applications and gives the membrane strength to hold mechanical fastenings for an exposed roof design.

UNIROOF REINFORCED MEMBRANE is suited for use with flat or sloping roof designs. It is also suitable for potable water containment in tanks reservoirs or fish ponds.

- **UNIROOF** forms a monolithic, weatherproof membrane over the entire roof deck. Reliable **hot air welding** technique ensure joints with the strength and integrity of the sheet material itself.
- **UNIROOF** retains stability at extremes of temperature
- **UNIROOF** remains flexible at -40°C, will not deteriorate with heat in either dry or humid environments
- **UNIROOF** is available in solar reflective grey and colours, by special order that resist fading
- **UNIROOF** is resilient to accommodate thermally or mechanically induced movements within the structure
- **UNIROOF** is light in weight to minimise roof loading
- **UNIROOF** will not propagate flame. The membrane meets BS 476 Part 3. S/FAA ratings.

INSTALLATION

All surfaces must be clean, dry and free from oil, grease and other contaminants and sharp objects. The concrete screeds, insulation materials or other surfaces on which the membrane is to be laid must have a rigid topping to withstand normal foot traffic.

LOOSE LAID MEMBRANE

The first sheet of the membrane is rolled out and held in position with small sand bags to prevent it moving when the next sheet is laid and the joint is welded. An overlap of 40mm must be allowed on both sides and end laps.

MECHANICAL FASTENED EXPOSED MEMBRANE

The first sheet of membrane is rolled out and anchored with the fasteners along one longitudinal edge of the sheet. The adjoining sheet overlaps the fasteners by 40mm and is welded to the top first sheet. Subsequent sheets are laid, fastened and welded in a similar manner. It is suggested that sand bags are used to hold the sheets in position during fixing and welding process to prevent wind uplift during laying.

BONDED MEMBRANE

The first sheet must be positioned and the line marked, The sheet is then folded back and **UNIROOF AD 434 Contact Adhesive** applied to the back of the sheet and the roof deck area. In some cases priming may be necessary, the adhesive should be allowed to dry on both surfaces and the surfaces placed together. It is important to line up the sheet and ensure that there are no wrinkles in it before bonding, once the sheet has been placed into the Adhesive it cannot be removed without damage to the sheet or surface to which it is bonded. Allowance must be made for the 40mm overlap at the longitudinal edge and the end of the sheet. These overlaps must be welded to make the joint. Any cut edges must be sealed with **UNIROOF AD437** to prevent wicking.

FLASHINGS

All flashings must be adhered to structural work with **UNIROOF AD 434 Contact Adhesive**. **Surface may need priming.**

UNIROOF REINFORCED MEMBRANE is made from a tough synthetic rubber with a polyester reinforcement and was introduced in 1951. Because of its particular chemical structure, it is highly resistant to weather, chemicals, oil and pollutants. Based on Du Pont HYPALON* -a premium synthetic rubber with a proven record of outstanding resistance to weathering, ultra-violet and aggressive chemicals.

UNIROOF REINFORCED MEMBRANE has its polyester scrim of 10x10x1000 Denier encapsulated and terminates in board of each edge to facilitate seaming of adjoining sheets on site. **UNIROOF** REINFORCED MEMBRANE is dimensionally stable and because of the reinforcement it distributes localised stresses imposed at fastening points over the entire membrane.

Physical Properties of *Uniroof* reinforced Hypalon Sheet

TEST	METHOD	RESULT
Accelerated ageing	ASTM E838 EMMAQUA 3 million Langleys (equivalent to 20 years exposure)	Pass without Degradation
Puncture Resistance	FTMS 101C, Method 2031	1116.95 Newtons.
Elongation of Hypalon Rubber only	ASTM D751	500% min
Flame resistance	BS 476 Part 3 UBC 32-7 ASTM E 108 UI 790 NEPA 256	External FAA rating class A flame exposure and intermittent flame and spread of flame
Hardness (ShoreA)	ASTM D2240	85 ± 5
Tear Strength	ASTM D751	
Machine Direction		378 Newtons
Transverse Direction		413 Newtons
Moisture vapour transmission	ASTM E 96-53T, procedure E ASTM E 96, procedure BW	0.78 perms 0.0032 gms/24 hrs/100 sq ins.
Chemical resistance available on request		

SHELF LIFE

The **UNIROOF** MEMBRANE supplied is jointed by hot air welding. Hypalon rubber cross links over a period of time once exposed to UV and moisture to form a vulcanised rubber which becomes tougher and more resistant to mechanical damage. The recommended shelf life of the membrane is six months from the date of delivery. The material must be kept in it's original wrapping, out of sunlight and wet conditions.

HANDLING THE MEMBRANE

Do not store roll on end. Do not store in damp conditions. Do not drag rolls across rough surfaces. Be careful not to damage the edges of the rolls. On site, do not leave the rolls unprotected in sunlight or without wrapping over night.

DISTRIBUTOR

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