

AEROFLEX EPDM INSULATION

EPDM Insulation — Tube, Sheet & Roll

Closed-cell elastomeric insulation for hot and cold pipework, ductwork and equipment

–57 to +125 °C SERVICE TEMPERATURE Glass transition approx. –50 to –60 °C	0.037 W/M·K AT 24 °C ASTM C177 & DIN 52613	0003 EARLY FIRE HAZARD INDICES AS 1530.3-1999, full range	155 SIZES IN RANGE 144 tube, 5 sheet, 6 roll
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DESCRIPTION

Aeroflex EPDM is a closed-cell elastomeric insulation for hot and cold pipework, ductwork and equipment, indoors and out. It is made from ethylene propylene diene monomer — a non-polar material that does not share water's polarity, so it does not draw moisture in the way nitrile-based insulation does. A dense skin is formed on both the inner and outer surface, creating a vapour and moisture barrier on cooling lines. Thermal conductivity is 0.037 W/m·K at 24 °C, held stable by the fine closed-cell structure rather than drifting as the material ages. Aeroflex carries an excellent weather and UV rating where nitrile-based products rate moderate, and is safe against copper, carbon steel and stainless steel — NBR/PVC makers advise against theirs on stainless. Supplied as 2 metre tube, flat sheet and continuous roll.

PROPERTIES

Material	EPDM closed cell	Weather & UV resistance	Excellent
Density	50–60 kg/m³	Fire — Australia	0003 to AS 1530.3-1999
Cell structure	Small closed cell, dense skin inside and outside	Fire — international	ASTM E-84 25/50; UL94-V0
Polarity to water	Non-polar	Marine type approval	DNV TAF00000ZNN valid to 15 Aug 2028
Thermal conductivity	0.037 W/m·K at 24 °C 0.0367 W/m·K at 23 °C	Marine testing	IMO FTP Code Parts 2 and 5
R-value, AS/NZS 4859.1	Tube 0.17–4.14 Sheet 0.16–1.36 m²·K/W	Nitrosamine	None found (US FDA test)
Water absorption	Less than 5% by weight	Metal compatibility	Copper, carbon steel, stainless steel
		Water vapour perm.	0.10 Perm-inch
		Physical strength	Fair — cuts cleanly

FORMATS AND SIZES

Tube — 2 m lengths · 144 sizes			Flat sheet — 1.2 m × 0.91 m			Roll — 1 m wide		
WALL	INTERNAL DIA.	NO.	WALL	INTERNAL DIA.	NO.	THICK.	LENGTH	CODE
6 mm	6 – 19 mm	5	25 mm	6 – 115 mm	24	6 mm		AIRP5802
9 mm	6 – 76 mm	20	32 mm	10 – 115 mm	17	9 mm		AIRP5803
13 mm	6 – 140 mm	26	38 mm	10 – 168 mm	22	13 mm		AIRP5804
19 mm	6 – 102 mm	23	50 mm	28 – 130 mm	7	20 mm		AIRP5806
						25 mm		AIRP5808
							10 mm	15 m AIRMSR10-SHEET-ROLL
							13 mm	11 m AIRMSR13-SHEET-ROLL
							20 mm	7 m AIRMSR20-SHEET-ROLL
							25 mm	5 m AIRMSR25-SHEET-ROLL
							32 mm	4 m AIRMSR32-SHEET-ROLL
							50 mm	2 m AIRMSR50-SHEET-ROLL

Sizes shown are the full range catalogued by Australian Sun Energy. Stock holding and lead time vary by size — confirm current availability before ordering.

INSTALLATION

- Slide tube over pipework before assembly where possible — the talc-coated inner skin speeds pre-assembly.
- On existing lines, slit length-wise with a blade or shears and snap into place.
- Seal cut edges and joints with Aeroseal adhesive (neoprene-base contact cement).
- Cut sheet and roll to size on site for ductwork, tanks, vessels and large-bore pipe; bond seams with Aeroseal.
- A high-temperature variant, Aeroflex HT Solar, is listed in 7 sizes — specifications differ; request the HT data sheet.

BEFORE YOU SPECIFY

Outdoor exposure. Aeroflex carries an excellent weather and UV rating and is supplied for indoor and outdoor service. On bare, fully exposed installations in direct Australian sun, Australian Sun Energy recommends finishing the insulation with Aerocoat to protect the surface over the long term. This is Australian Sun Energy's recommendation for local conditions, not a manufacturer requirement.

Marine. DNV type approval covers vessels classed by DNV, accepted per project. Approved thickness band 6–50 mm. Any adhesive other than the one used in testing must itself be tested to IMO 2010 FTP Code Part 5. Sanitary hot and cold water piping is not treated as cold service pipework.