

THERMAL PIPE INSULATION



Hot & cold pipe insulation
Energy efficient
Non-toxic
Meets low V.O.C.

4-Zero



About Thermotec

Thermotec Australia Pty Ltd has been manufacturing both thermal and acoustic products in Australia since 1987.

Producing and supplying a competitive World class range of products is the result of continual product development, manufacturing efficiencies, and a dedication to quality.

Thermotec products, such as 4-Zero pipe insulation, are trusted to exceed performance expectations, and are designed to meet or exceed the Building Codes of the Countries, States, Provinces or industry categories where they are specified and installed.



Thermotec 4-Zero pipe insulation project applications



- *Hospitals & Aged Care Facilities*
- *Hotel & Entertainment*
- *Commercial Buildings—Offices etc.*
- *Public Service Facilities & Buildings*
- *Shopping Centre Complexes*
- *Multi Level Unit Housing*
- *Luxury Accommodation Buildings*

Thermotec Pipe Insulation meets modern building requirements



Thermotec 4-Zero pipe insulation has been developed to meet the demanding standards of commercial hot and cold water reticulating systems. With excellent thermal insulation performance, Thermotec 4-Zero provides the energy retention properties required by current building specifications.

Thermotec, aluminium foil faced 4-Zero, meets the needs of the specifier that requires a high performing product while offering optimum resistance to fire. This product gives a “zero” rating when tested in accordance with AS/NZS1530.3 “early fire hazard properties of materials”.

This pipe insulation contains up to 50% recycled materials, is environmentally safe, and meets the stringent low V.O.C. GreenStar and Green Building requirements.

“quality is not expensive, it’s priceless”

Product Information

- Closed cell pre-formed thermal pipe insulation
- Heat laminated, factory fitted, reinforced aluminium foil face
- Higher density foam for longevity and durability
- Suitable for underground applications
- Low installed cost – Maximum energy savings
- Resistant to moisture with high vapour resistance - anti-microbial
- Resistant to hydrocarbons and most chemicals
- Non-toxic fume performance - BS6853
- Pre-slit for fast installation
- Green Star compliant – low VOC and zero ozone depleting substances
- Manufactured using up to 50% recycled material
- The original and only genuine “4-Zero” Australian made pipe insulation



Technical Data

Physical State		Closed cell foam / foil faced	
Density Kg/M3		40-50 Kg/M ³	
Cell Structure		Closed	
Foam Colour		Charcoal	
Operating Temperature Range		-40°C to 90°C	
Water Vapour Diffusion Resistance	DIN52615	H>3.5%	
	ASTM E96	0.0022G/M ² HMM H6	
Water Absorption after 28 Days	DIN53434	<2%	
U.V. Resistance		10 year with E-cladding foil face	
Weatherability		Good	
Thermal Conductivity	ISO 8302-1991	0.032 W/m.K @ 23°C	
Acoustic Reduction		4dB Insertion Loss – 100mm diameter pipe	
Chemical Resistance	ASTM543.56T	Excellent - resists most common acids/chemicals, including oils	
Ozone Resistance	ASTMD1171	Excellent	
Fire Performance per AS1530.3		Ignitability	0
		Spread of Flame	0
		Head Evolved	0
		Smoke Developed	0/1
Toxicity in Fire	BS6853	Tested-no toxic fumes	
Rodent/Pest	Resistant	Contains no food source	



4-Zero “keeping hot water hot”



What to Specify

The pipe insulation shall be Australian made Thermotec 4-Zero, fire retardant closed cell polyethylene foam, having a density of not less than 40kg/m³.

The pipe insulation shall have a wall thickness of either 15mm, 20mm, 25mm, 30mm, 38mm or 50mm (*delete thickness not required*) and incorporate a factory applied aluminium foil with a 25mm overlap. The pipe insulation shall comply with the requirements of the Building Code of Australia in accordance with AS/NZS4859.1, AS3500.4 and tested to AS/NZS1530.3

All insulation shall be installed around the pipe work surface as tightly as possible without gaps. The edges and ends shall be tightly butted together and all joints and foil overlaps be taped using a 48mm wide 4-Zero rated pressure sensitive adhesive aluminium foil tape.

Where necessary, the preformed sections shall be cut (using a sharp knife) and mitred, to ensure a tight fit around elbows and at tees.

Where pipe size exceeds 101.6mm outside diameter, the insulation shall be specified as Thermotec 4-Zero Thermalag with factory applied aluminium foil, cut to predetermined width to exactly fit the pipe diameter.

Where supports and spacer blocks are used to support the pipe work, the pipe insulation shall be butted tightly up to the spacer blocks and sealed using a silicon sealant.

Energy Efficiency

Thermotec 4-Zero has been designed to provide maximum energy retention in pipework by enabling class leading thermal resistant materials to ensure the most efficient wall thickness to meet today's stringent requirements. Meets requirements of the Australian Building Code.

Thermotec 4-Zero is aluminium foil faced, which not only provides excellent resistance to fire, but also provides excellent heat reflecting properties.

Testing

Fire Performance	AS/NZS1530.3 - AWTA Australia	Toxic Fume	BS 6853:1999 – Warrington Fire – UK
Fire Performance	BS 476.6&7 - PSB Pty Ltd -Singapore	Acoustic	Wilkinson Murray- Australia
Low VOC	CETEC - Australia		

AS/NZS4859.1 Compliant

Green Product

- Low V.O.C. (Green Building Council & GreenStar compliant)
- ODP-EMI9– No ozone depleting substances used in both manufacture & composition of the product
- GWP– Zero contribution to “Global Warming Potential”
- Reuse-Reduce-Recycle – Manufactured using up to 50% recycled material



Sizes Available

Pre-formed to suit pipe diameters from 13mm to 101.6mm. Wall thickness 15mm, 20mm, 25mm, 38mm & 50mm Thermalag available for larger sizes with wall thickness 15mm to 50mm

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