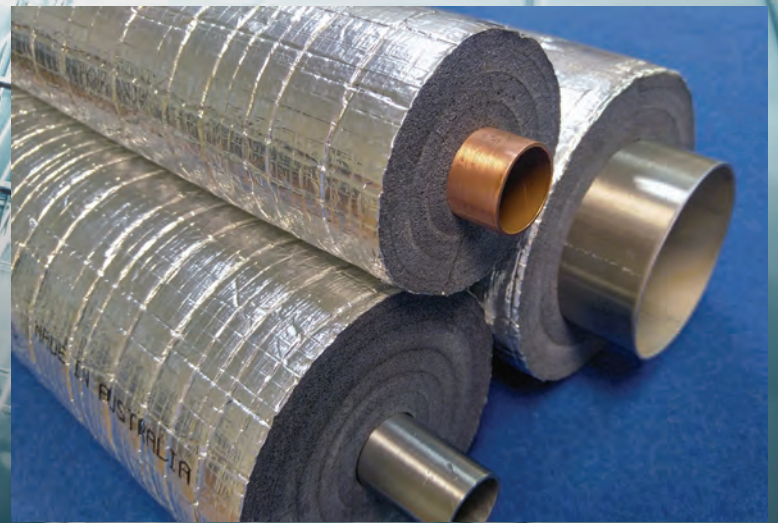


# **THERMOBREAK<sup>®</sup> LsTube**



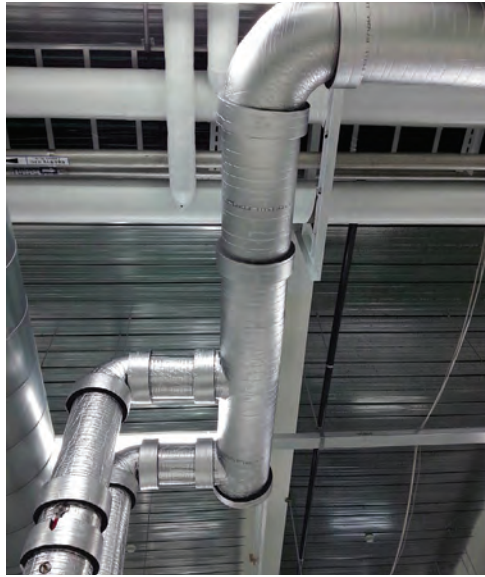
**Physically crosslinked  
polyolefin foam pipe insulation**

**SEKISUI**

**FOAM  
INTERNATIONAL**  
Global Foam Solutions

**PHYSICALLY  
CROSSLINKED**  
SEKISUI TECHNOLOGY





## Setting the Standard

Thermobreak® is the leading and most innovative polyolefin foam thermal insulation available to the HVAC and Building industry worldwide. Thermobreak's performance is unsurpassed. It has class leading thermal conductivity and vapor permeability.

Developed in Australia over 25 years ago, Thermobreak® is manufactured using our proprietary physically crosslinked foam technology invented and commercialised by the Sekisui Chemical Group.

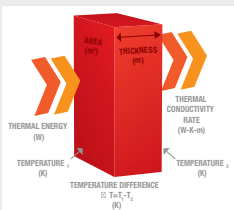
## Compliance to International Fire & Smoke Standards

Thermobreak LS meets and complies with major international fire and smoke standards

- ASTM E84 ( 25/50)
- BRITISH (BS 476 Class 0, BS 6853)
- AUSTRALIAN (AS 1530.3)

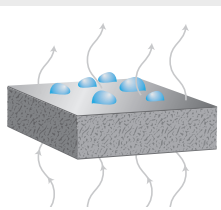
## Technically Superior

Our unique physically crosslinked technology results in a smaller and more evenly distributed cell structure. Cell structure directly affects thermal conductivity and vapour permeability. Both are key factors in insulation performance.



### Thermal Conductivity:

**0.22 BTU.in/h.ft² (73° F)** is the lowest of any flexible insulation material. On equivalent thickness basis, **Thermobreak®** provides up to 18% better insulation than elastomeric and chemically crosslinked foams.



**Vapor Permeability of almost zero** ensures our thermal conductivity remains relatively constant for a period of 10 years, thus significantly contributing to building sustainability and energy cost reduction.

Vapour Permeability = 0.002 perm-inch  
Permeability Resistance Factor:  $\mu > 80,000$



The Address Sky Views, Dubai UAE  
M&E Consultant: NORR Consulting Engineers



Fountain Views, Dubai UAE  
M&E Consultant: Deewan/WME Consulting Engineers



University of Technology, Sydney AUS



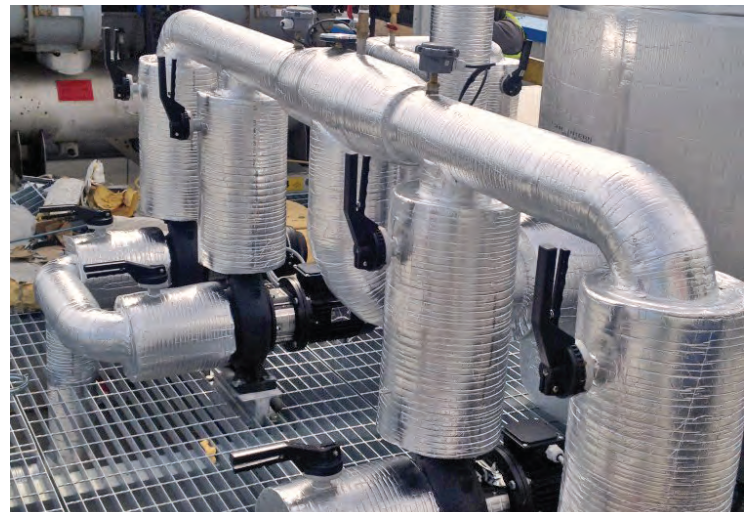
Westfield Plaza, Sydney Australia  
M&E Consultant: Norman Disney Young

## Building Sustainability

*Building Sustainability, Energy Efficiency, Indoor Air Quality and Health & Safety, are all key elements embodied in the Green Building concept.*

Thermobreak® insulation is manufactured to support and comply with such initiatives and enables credit point accumulation through various building accreditation systems such as LEED and Estidama.

- Green Star Compliant (VOC)
- No CFCs or HCFCs
- Zero Ozone Depletion Potential (Montreal Protocol)
- Low GWP
- Zero PVC, Zero Formaldehyde
- Dubai GBR approved
- Compliance to RoHS Directive
- Compliance to REACH Directive
- Resistance to Mold Growth



# THERMOBREAK<sup>®</sup> Ls Tube

## TECHNICAL SPECIFICATIONS

### Physical Properties

Material:	Physically (irradiation) crosslinked closed cell polyolefin foam with factory applied reinforced aluminium foil.
Density:	1.5 lb/f <sup>3</sup> (foam core only)
Thermal Conductivity: (ASTM C518)	0.22 BTU.in/h.ft <sup>2</sup> (73° F)
Water Vapor Permeability: (ASTM E96)	0.002 perm-inch
Water Vapor Permeance: 1/2" thickness	0.0034 perm
Water Absorption by Volume: (JIS K6767)	<0.1% v/v (0.00038 g/cm <sup>2</sup> )
Permeability Resistance Factor:	μ > 80,000
Resistance to Fungi: (ASTM G21)	Zero Growth
Ozone Resistance:	Excellent
UV Resistance:	Excellent
Operating Temperature Range:	-112°F ~ 212°F (no adhesive)
GreenStar Rating: (ASTM D5116)	Low VOC Emitting
Physical Property Requirements: (ASTM C1427)	COMPLIES (Type II - Sheet)
REACH Directives: (1907/2006/EC)	COMPLIES

Product Certification may be plant specific. Please consult with your local representative.

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### Fire and Smoke Behavior

ASTM E84	COMPLIES (NFPA 90A & B)
	Flame Spread Index: ≤25
	Smoke Developed Index: ≤50
BS476 Parts 6 & 7:	CLASS 0
AS1530 Part 3	Ignitability Index: 0
	Spread of Flame Index: 0
	Heat Evolved Index: 0
	Smoke Developed Index: 0-1



### Size Availability

#### Preformed tube:

Nominal Wall Thickness	Min ID (in)	Max ID
3/8" (10mm)	3/8" (10mm)	10"
1/2" (13mm)	3/8" (10mm)	10"
5/8" (15mm)	3/8" (10mm)	10"
3/4" (20mm)	3/8" (10mm)	10"
1" (25mm)	3/8" (10mm)	10"
1 1/2" (40mm)	3/8" (10mm)	8"
2" (50mm)	3/8" (10mm)	8"

**SEKISUI**



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