

# **THERMOBREAK™** No-Clad

**PRE-CLADDED EXTERNAL INSULATION**



Closed cell, physically crosslinked polyolefin foam insulation with innovative ultra tough foil facing for external applications.

**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.

Developed in Australia over 30 years ago, Thermobreak™ is manufactured using our proprietary physically crosslinked closed cell polyolefin foam technology, invented and commercialised by the Sekisui Chemical group in Japan. Laminated with reinforced foil and adhesive backing, Thermobreak™ is widely recognised as the global leader in polyolefin insulation.

Thermobreak™ insulation is manufactured to ASTM C1427 Standard.

## No Clad™ Pre-cladded Insulation with Surface Protection

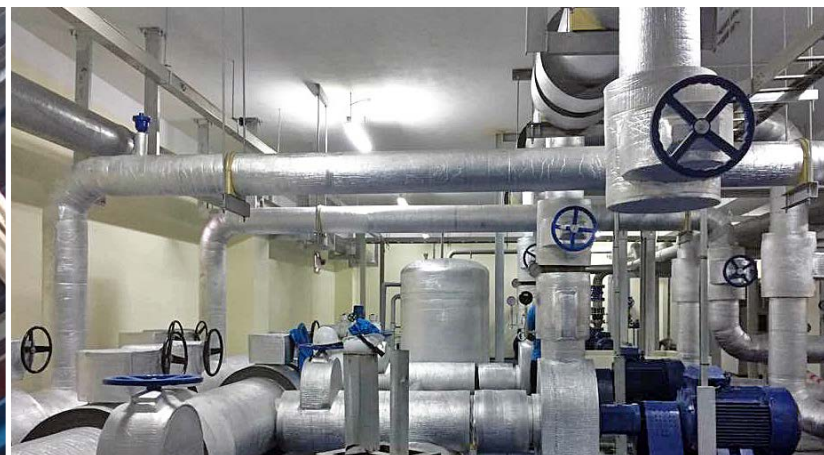
Ultra tough, easy to fabricate Thermobreak™ No-Clad is a closed cell, physically cross-linked polyolefin foam pipe and duct insulation. Thermobreak™ No-Clad is faced with a new UV and puncture resistant foil. The new foil facing consists of a very strong puncture resistant reinforcement and proprietary clear coating which is resistant to corrosion, weathering and UV. To provide system integrity and protection of joints from the elements, a specially designed foil tape with added UV protection has been developed.

## Fire and Smoke Safety

Thermobreak™ No-Clad Tube is covered by the FM Approvals third party product certification system and is approved to FM 4924 standard for Pipe and equipment coverings.

In addition, Thermobreak™ No-Clad has been tested to various International Fire & Smoke Standards and building regulations:

- ASTM E84 (25/50);
- British Standard BS 476 (Class 0);
- Australian Standard AS 1530.3;
- Dubai Central Laboratories Product Conformity Certification Scheme.







## Ultra Tough and Easy to Fabricate

Thermobreak™ No-Clad is easy to cut and fabricate and contributes to reducing installation time of mechanical services. Available with repositionable adhesive backing, Thermobreak™ No-Clad provides significant cost savings compared to traditional cladded insulation.

## Extensive Technical Support

- ThermaCalc™ computer selection program with full analysis of heat flows
- Technical information bulletins
- Independent laboratory testing and certification
- Backed by the financial and technical strength of a global company with locally based engineers

## Health, Safety and the Environment

- Completely user friendly and does not emit fibres or dust during installation or in service
- Non-irritant, odourless, and will not support bacterial growth
- Green Star compliant (VOC)
- Zero Global Warming Potential (GWP)
- Made without Ozone destroying agents such as CFCs or HCFCs
- Manufactured under a certified ISO 14001 Environmental Management System



Yas Marina Circuit, Abu Dhabi



Al Khorayef Tower, Khobar KSA



Mall of Qatar, Doha

# THERMOBREAK™ No-Clad

## TECHNICAL SPECIFICATIONS

### Physical Properties

Material: Physically (irradiation) crosslinked closed cell polyolefin foam with factory applied, heavy duty multilayer composite with a specially developed UV and weather durable coating.

Density:	1.5 pcf (foam core only)
Thermal Conductivity: (ASTM C518)	0.22 BTU.in/h.ft <sup>2</sup> .°F(73°F)
Puncture Resistance (ASTM D4833)	>90 lbf
Tear Strength (ASTM D751)	> 13 lbf MD > 11 lbf CD
Tensile Strength (ASTM D751)	> 225 lbf MD > 200 lbf CD
MD= Machine Direction, CD=Cross Direction	
UV Resistance (3000 hr QUV exposure) (ISO 4892-3)	No change in performance or appearance
Salt Resistance (Internal Method ) (2 week immersion in 5 % salt solution)	No visible change in appearance
Water Vapour Permeability (ASTM E96)	<0.003 perm-inch (basis 1" thickness)
Water Vapour Permeance	<0.003 perms (basis 1" thickness)
Permeability Resistance Factor:	> 40,000 (basis 1" thickness)
Water Absorption by Volume: (ASTM C1763, Procedure B, 24h)	< 0.2% v/v
Resistance to Fungi: (ASTM G21)	Zero Growth
Leachable Chlorides: (ASTM C871)	< 12 ppm (< 0.0012% w/w)
Ozone Resistance:	Excellent
Operating Temperature Range:	- 112° F to 212° F (no adhesive)
Physical Property Requirements:	COMPLIES (ASTM C1427)

### Size Availability

#### Sheets:

Material Thickness		Sheet Size	
(mm)	(inches)	(mm)	(inches)
15	5/8"	1200 mm x 2300mm	47.2" x 90.5"
20	3/4"	1200 mm x 2300mm	47.2" x 90.5"
25	1"	1200 mm x 2300mm	47.2" x 90.5"
40	1-1/2"	1200 mm x 2300mm	47.2" x 90.5"
50	2"	1200 mm x 2300mm	47.2" x 90.5"

#### Preformed tube (length 6.5')

Wall Thickness		Min ID		Max ID	
(mm)	(inches)	(mm)	(inches)	(mm)	(inches)
10	3/8"	6.35	1/4"	273.1	10"
12	1/2"	6.35	1/4"	273.1	10"
15	5/8"	6.35	1/4"	273.1	10"
20	3/4"	6.35	1/4"	273.1	10"
25	1"	6.35	1/4"	273.1	10"
30	1-3/16"	6.35	1/4"	273.1	10"
40	1-1/2"	6.35	1/4"	273.1	10"
50	2"	6.35	1/4"	273.1	10"

\*Other Sizes Available on request

### Fire and Smoke Performance

ASTM E84 (UL 723)	Complies (NFPA 90A & 90B)
Flame Spread index	≤ 25
Smoke Developed index	≤ 50
BS 476 Part 6&7	Class 0
FM 4924 (tube)	FM Approved (pipe)
Up to 8" IPS	
Up to 2" wall thickness	
AS1530 Part 3	Ignitability Index: 0
	Spread of Flame Index: 0
	Heat Evolved Index: 0
	Smoke Developed Index: 0-1

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

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