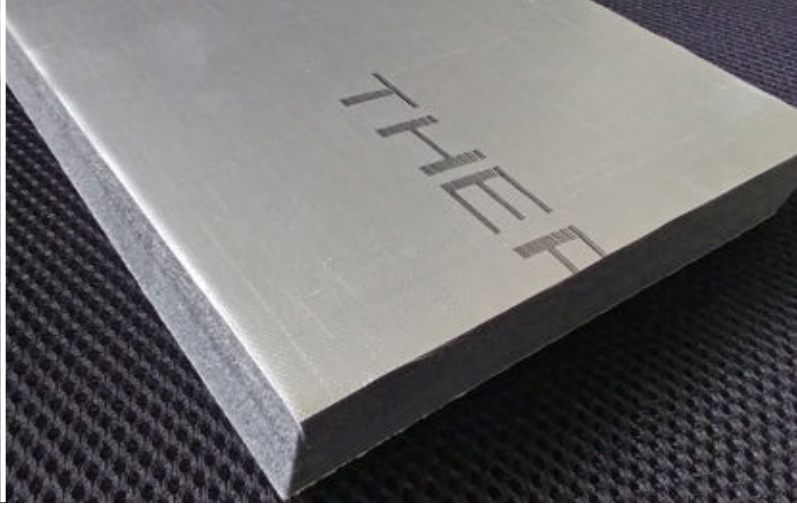
THERMOBREAK® No-Clad

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.

FM APPROVED

TÜV SÜD PSB Singapore

DCL PRODUCT CONFORMITY

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:	25 kg/m^3 (foam core only)
Thermal Conductivity: (ASTM C518)	0.032 W/mK (@ 23° C mean temperature)
Puncture Resistance (ASTM D4833)	>400 N
Tear Strength (ASTM D751)	> 60 N MD > 50 N CD
Tensile Strength (ASTM D751)	> 1000 N MD > 900 N CD
MD= Machine Direction, CD=Cross Direction	
UV Risistence (3000 hr QUV exposure) (ISO 4892-3)	No change in performance or appearance
Salt Resistance (Internal test) (2 week immersion in 5 % salt solution)	No visible change in appearance
Water Vapour Permeability (ASTM E96)	< 4.1 x 10^{-15} kg/Pa.s.m (basis 25mm thickness) (0.015 mg.m/N.h)
Water Vapour Permeance	< 1.7 x 10^{-4} g/MN.s
Permeability Resistance Factor:	μ > 40,000
Water absorption by Volume: (ASTM C1763, Procedure B, 24h)	< 0.2% v/v
Resistance to Fungi: (ASTM G21)	Zero Growth
Ozone Resistance:	Excellent
Operating Temperature:	-80° C to 100° C (no adhesive)
Leachable Chlorides: (ASTM C871)	< 12 ppm (< 0.0012% w/w)
Physical Property Requirements: (ASTM C1427)	COMPLIES

Size Availability

Sheets:

Thickness	Width	Length
15mm	1200mm	2300mm
20mm	1200mm	2300mm
25mm	1200mm	2300mm
30mm	1200mm	2300mm
40mm	1200mm	2300mm
50mm	1200mm	2300mm

Preformed tube (2m lengths)

Nominal Wall Thickness	Min ID (in)	Max ID
15mm	10mm	273mm
20mm	10mm	273mm
25mm	10mm	273mm
30mm	10mm	273mm
40mm	10mm	219mm
50mm	10mm	219mm

ID sizes up to 500mm available on request
*Other sizes available on request

Fire and Smoke Performance

ASTM E84 (UL 723) Flame Spread Index Smoke Developed Index		Complies (NFPA 90A & 90B) ≤ 25 ≤ 50
BS 476 Part 6&7		Class 0
FM 4924 (tube) Up to 8" IPS (219mm ID) Up to 50mm wall thickness		FM Approved
AS1530 Part 3	Ignitability Index: Spread of Flame Index Heat Evolved Index Smoke Develop Index	0 0 0 0-1

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

Distributed by

SEKISUI FOAM INTERNATIONAL
Global Foam Solutions

bsi. ISO 9001 Quality Management
bsi. ISO 14001 Environmental Management

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