

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

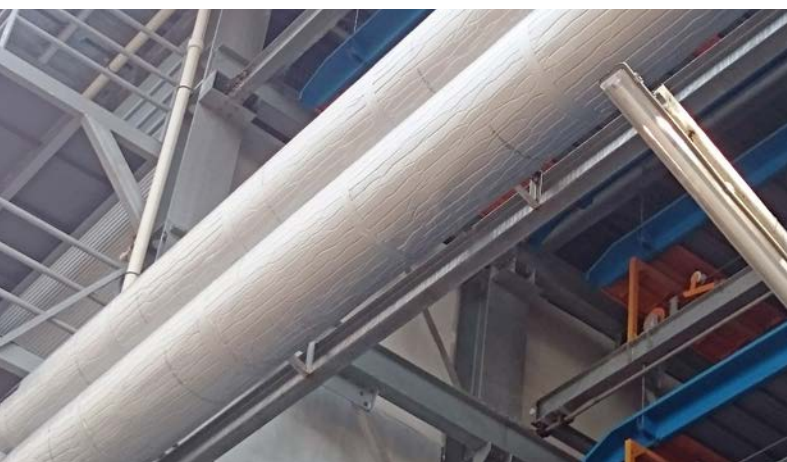
Ultra tough, easy to fabricate Thermobreak® No-Clad is a closed cell, physically cross-linked polyolefin foam pipe and duct insulation. Thermobreak® No-Clad is faced with a new UV and puncture resistant foil. The new foil facing consists of a very strong puncture resistant reinforcement and proprietary 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:

- British Standard BS 476 (Class 0);
- Australian Standard AS 1530.3.





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/m³ (foam core only)

Thermal Conductivity:
(ASTM C518) 0.032 W/mK (@ 23° C mean temperature)

Puncture Resistance
(ASTM D4833) >400 N

Tear Testing
(ASTM D751) > 60 N MD
> 50 N CD

Tensile Testing
(ASTM D751) > 1000 N MD
> 900 N CD

MD= Machine Direction, CD=Cross Direction

UV & Weathering
(3000 hr QUV exposure) Excellent
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: $\mu > 40,000$

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)

Product certification may be plant specific. Please consult with your local representative.
Thermobreak is a registered trademark of Sekisui Chemical Co. Ltd. or its subsidiaries.

Distributed by



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Size Availability

Thermobreak[®] No-Clad is available in a range of sizes for pipes and ducts.

Tube (Standard Pipe): ID's from 25mm to 219mm, with wall thicknesses from 25mm to 50mm in 2m lengths.

Tube (Large Pipe): Up to 610mm ID with thicknesses up to 75mm in 1.2m lengths.

Rectangular Duct: Available in sheets 1200mm x 2300mm in thicknesses of 15mm to 64mm (pre-cut "V" notched sheets available on request).

Round Duct (Thermobreak Quadro RD): Up to 1000mm ID with thicknesses up to 96mm in 1.2m lengths.

*Other sizes available on request

Fire and Smoke Performance

BS 476 Part 6&7 Class 0

FM 4924(pipe) FM Approved
(up to 8" IPS & 50mm wall thickness)

AS 1530.3(1999)
Ignitability Index 0
Spread of Flame Index 0
Heat Evolved Index 0
Smoke Develop Index 0-1



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