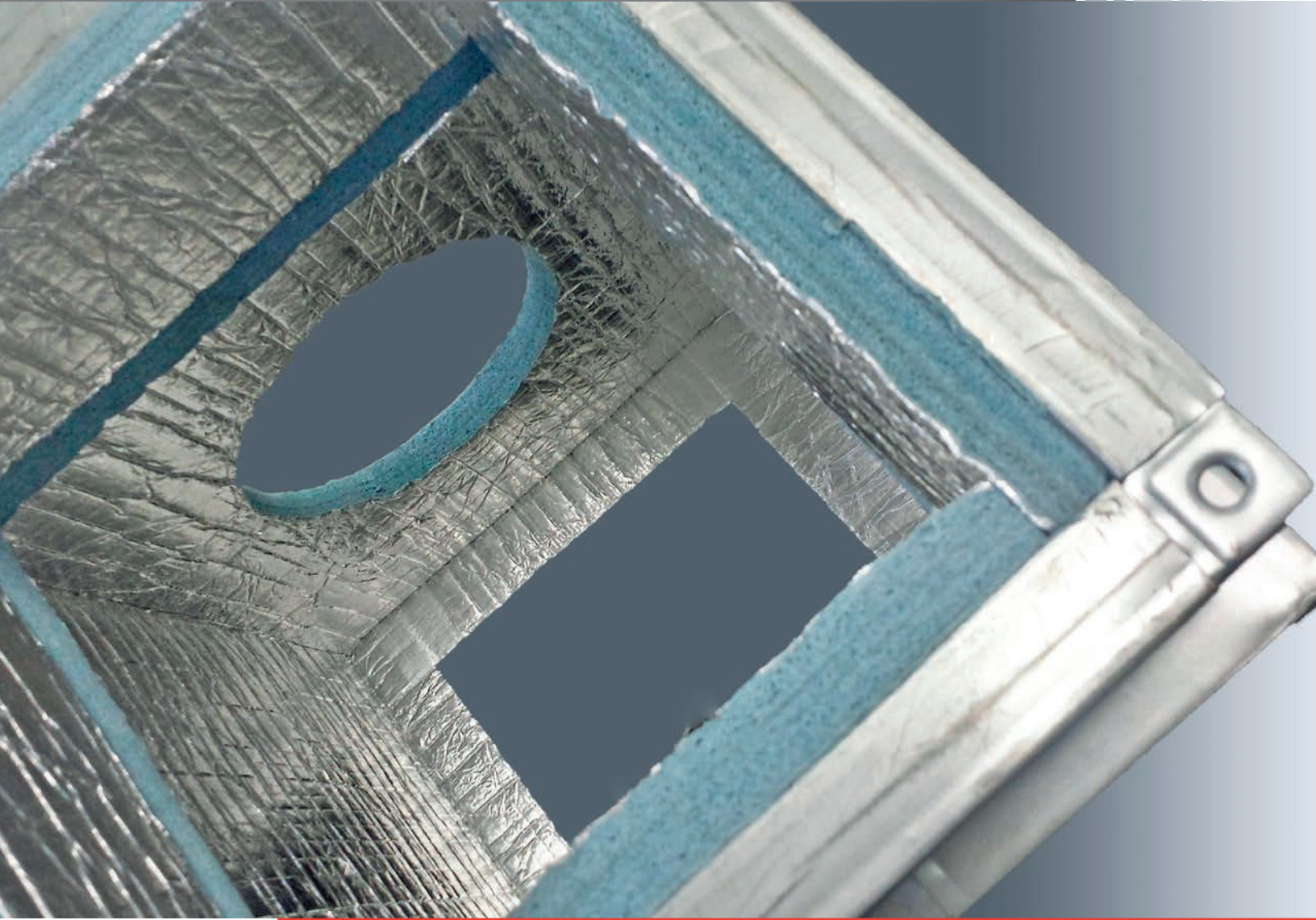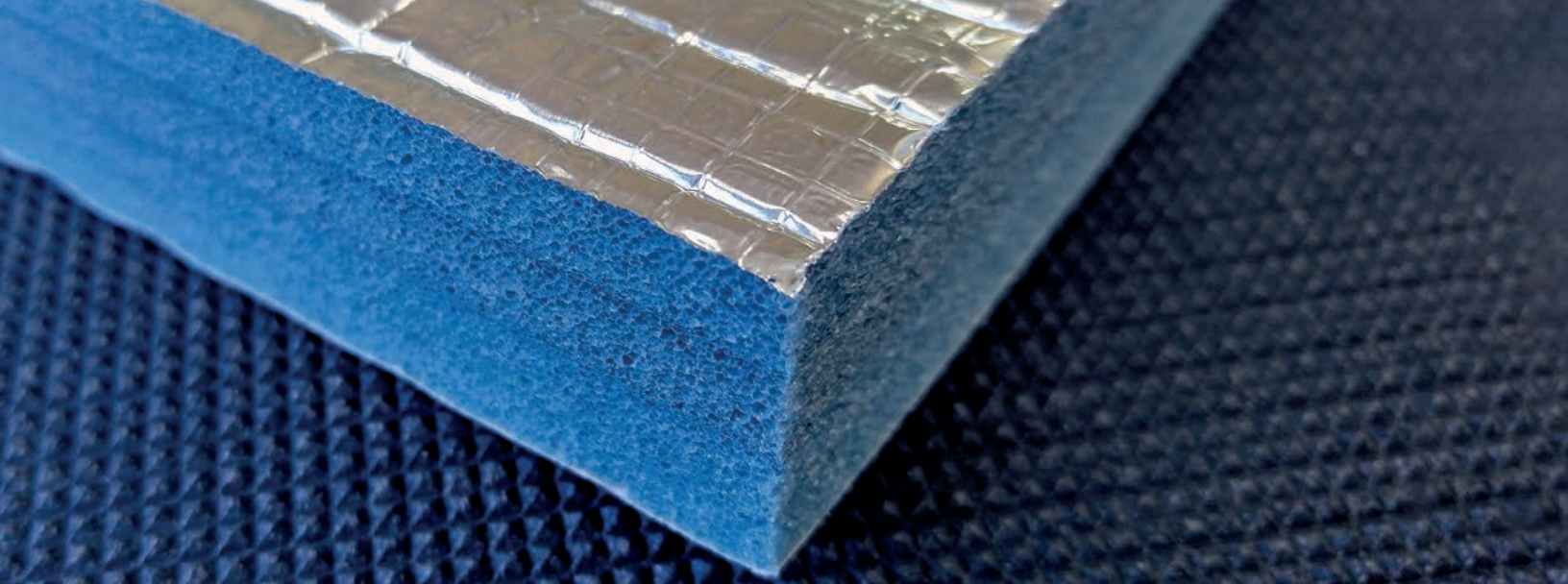# THERMOBREAK™ AcoustiPlus

ACOUSTIC INSULATION

- Flexible, partially open cell physically crosslinked polyolefin foam duct liner
- Excellent sound absorption properties & thermal performance
- Fibre free
- Fire rated to ASTM E84 (25/50) and BS 476 Class 0

SEKISUI | **FOAM** INTERNATIONAL
Global Foam Solutions

PHYSICALLY CROSSLINKED
SEKISUI TECHNOLOGY

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.

A New Generation Duct Liner

Thermobreak™ AcoustiPlus is a new generation physically cross-linked polyolefin foam based duct liner. It is fibre-free and meets international fire and smoke standards. It demonstrates excellent acoustic properties, even at low thicknesses. It has extremely low water absorption thus preventing bacterial growth and odours commonly associated with fibrous based duct lining. Thermobreak™ AcoustiPlus is supplied with reinforced aluminium foil and is available with a pressure sensitive adhesive backing.

Compliance to International Fire & Smoke Standards

Thermobreak™ Acoustiplus complies with major international fire and smoke standards

- ASTM E84 (25/50)
- British Standard BS 476 (Class 0)
- Australian Standard AS 1530.3;

Engineered To Perform

Thermobreak™ AcoustiPlus solves tight clearance issues by providing excellent acoustic absorption, very low thermal conductivity and low water vapour permeance at a low thickness. Thermobreak Acoustiplus is easy to cut, available with a repositionable adhesive backing and fibre free resulting in a fast, easy and mess free install.
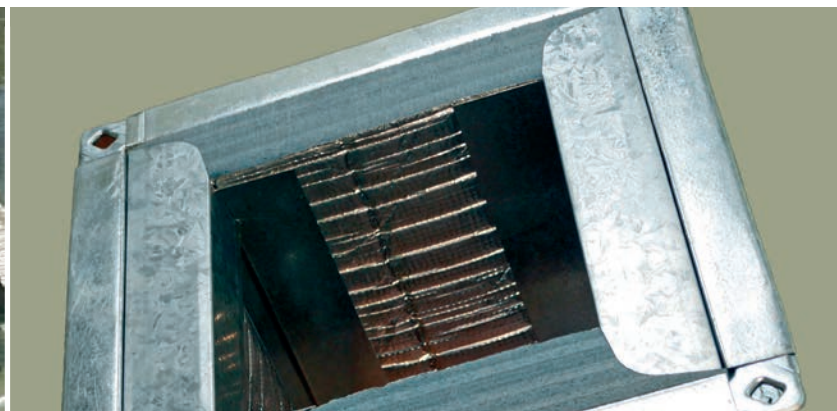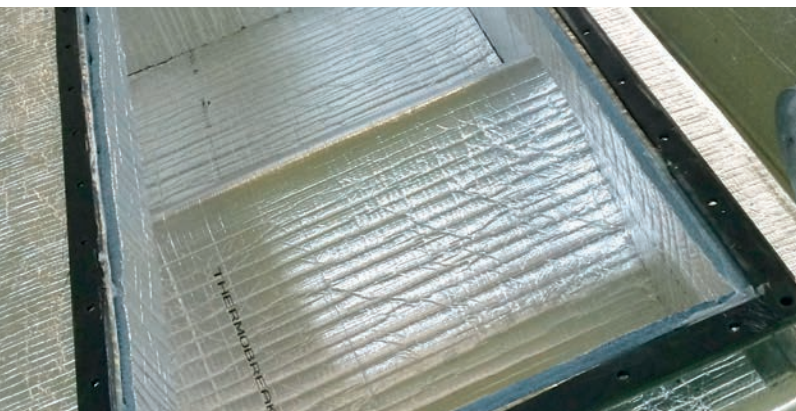
Thermobreak™ AcoustiPlus Sound Absorption Coefficients

Chart — X-axis: Frequency (Hz), Y-axis: Sound Absorption Coefficient

Legend:
- Acoustiplus 10mm (SL)
- Acoustiplus 15mm
- Acoustiplus 24mm
- Acoustiplus 54mm
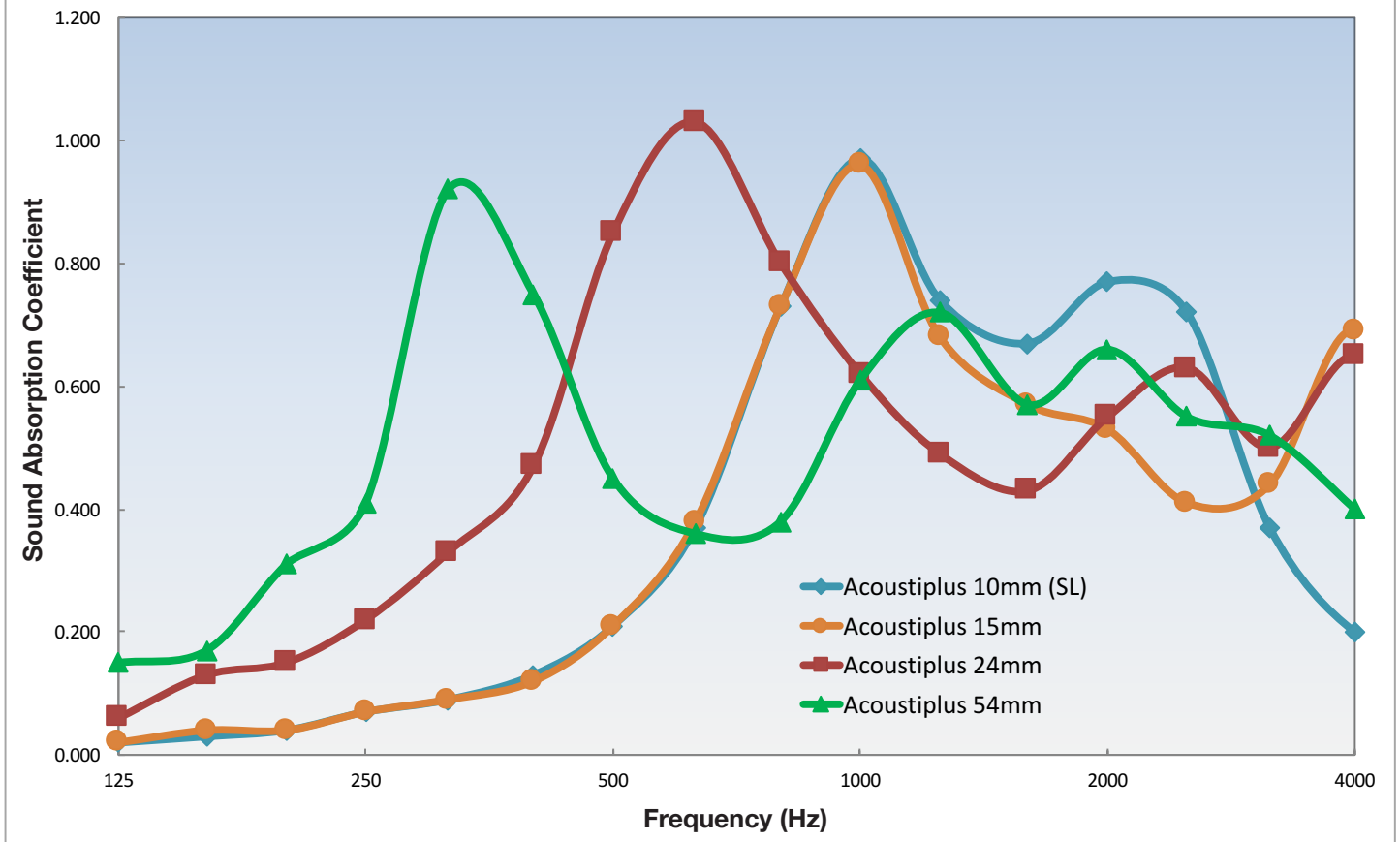
Software Design Selection

- AcoustiCalc computer selection program provides noise reduction analysis based on dB input, insulation thickness and length of duct lining.

Available on the App Store
Get it on Google play
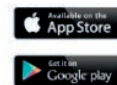
Health, Safety & the Environment

- Completely user friendly and does not emit fibres or dust during installation or in service.
- Non-irritant, odourless and does not support bacterial growth.
- Anti-Microbial & Low VOC for improved indoor air quality.
- Green Star compliant, Zero Global Warming Potential (GWP), made without ozone destroying agents such as CFCs or HCFCs.
- Manufactured under a certified ISO 14001 Environmental Management System.

Burjeel Medical City Abu Dhabi, UAE

JW Marriott Phu Quoc, Vietnam

THERMOBREAK™ AcoustiPlus

TECHNICAL SPECIFICATIONS

Physical Properties

Material: Physically (irradiation) crosslinked partially open cell polyolefin foam with factory applied reinforced aluminium foil and optional pressure sensitive adhesive backing.

Density:	1.5 pcf (foam core only)
Thermal Conductivity: (ASTM C518)	0.25 BTU.in/h.ft^2.°F (@ 73°F mean temperature)
Water absorption by volume: (ASTM C1763, Procedure B, 24h)	< 0.3 % v/v
Resistance to fungi: (ASTM G21)	Zero Growth
VOC Emission Rate: (ASTM D5116)	Low VOC Emitting ("Green Star")
Operating Temperature Range:	-112°F ~ +212°F (no adhesive backing)
Maximum Recommended Design Air Velocity:	20.3 m/s (4000 fpm)

Performance Indices

(ISO 354 Sound Absorption)

Thickness	SAC (a$_w$)	NRC
3/8" / 10mm	0.30 (MH)	0.50
5/8" / 15mm	0.30 (MH)	0.45
1" / 24mm	0.55 (M)	0.55
2-1/8" / 54mm	0.55	0.55

Size Availability

Rolls

Material Thickness		Roll Size	
(mm)	(inch)	(mm/m)	(inches / feet)
8	5/16"	1200mm x 50m	47.2" x 164'
10	3/8"	1200mm x 20m	47.2" x 65.6'
15	5/8"	1200mm x 20m	47.2" x 65.6'
24	1"	1200mm x 15m	47.2" x 49.2'

Sheets

Material Thickness		Sheet Size	
(mm)	(inch)	(mm/m)	(inches / feet)
24	1"	1200mm x 2300mm	47.2" x 90.5"
54	2-1/8"	1200mm x 2300mm	47.2" x 90.5"

Other thickness available on request.

Fire and Smoke Performance

ASTM E84 (UL 723)	Complies (NFPA 90A & 90B)
Flame Spread index	≤ 25
Smoke Developed Index:	≤ 50

AS1530 Part 3	COMPLIES (AS 4254)	
	Ignitability Index:	0
	Spread of Flame Index:	0
	Heat Evolved Index:	0
	Smoke Developed Index:	0-1

ISO 5658 Part 2	Flame Spread COMPLIES (EN 45545:2 R1, HL3 RATING, 1/5" – 1")
ISO 5659 Part 2	Smoke Density COMPLIES (EN 45545:2 R1, HL3 RATING, 1/5" – 1")
	Smoke Toxicity COMPLIES (EN 45545:2 R1, HL3 RATING, 1/5" – 1") COMPLIES (DIN 5510:2) FED < 1
ISO 5660 Part 1	Heat Release Rate COMPLIES (EN 45545-2 R1, HL3 RATING, 1/5" – 1")
ASTM E162	Surface Flammability COMPLIES (PRIIA/NFPA 130)
ASTM E662	Smoke Density COMPLIES (PRIIA/NFPA 130)
ASTM E1354	Heat Release Rate COMPLIES (PRIIA)
BSS 7239 (Boeing)	Smoke Toxicity COMPLIES (PRIIA)
BS 476 Parts 6 & 7	CLASS 0
UL 181 Part 11	COMPLIES (AS 4254)

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

Distributed by

Thermobreak is a registered trademark of Sekisui Chemical Co. Ltd. or its subsidiaries.