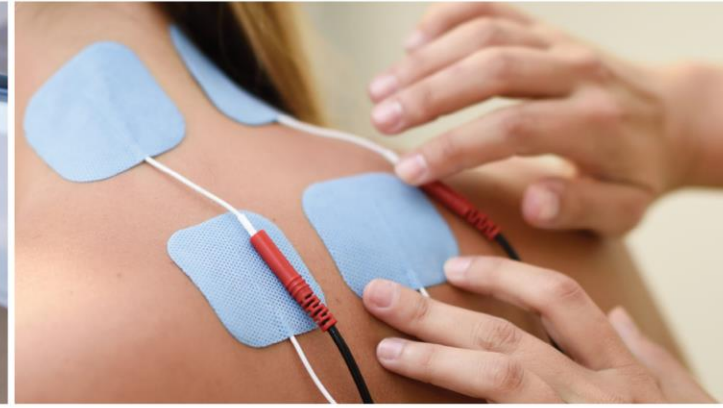




SEKISUI | **VOLTEK**

Foam Solutions through Innovation

THERMOBREAK[®]

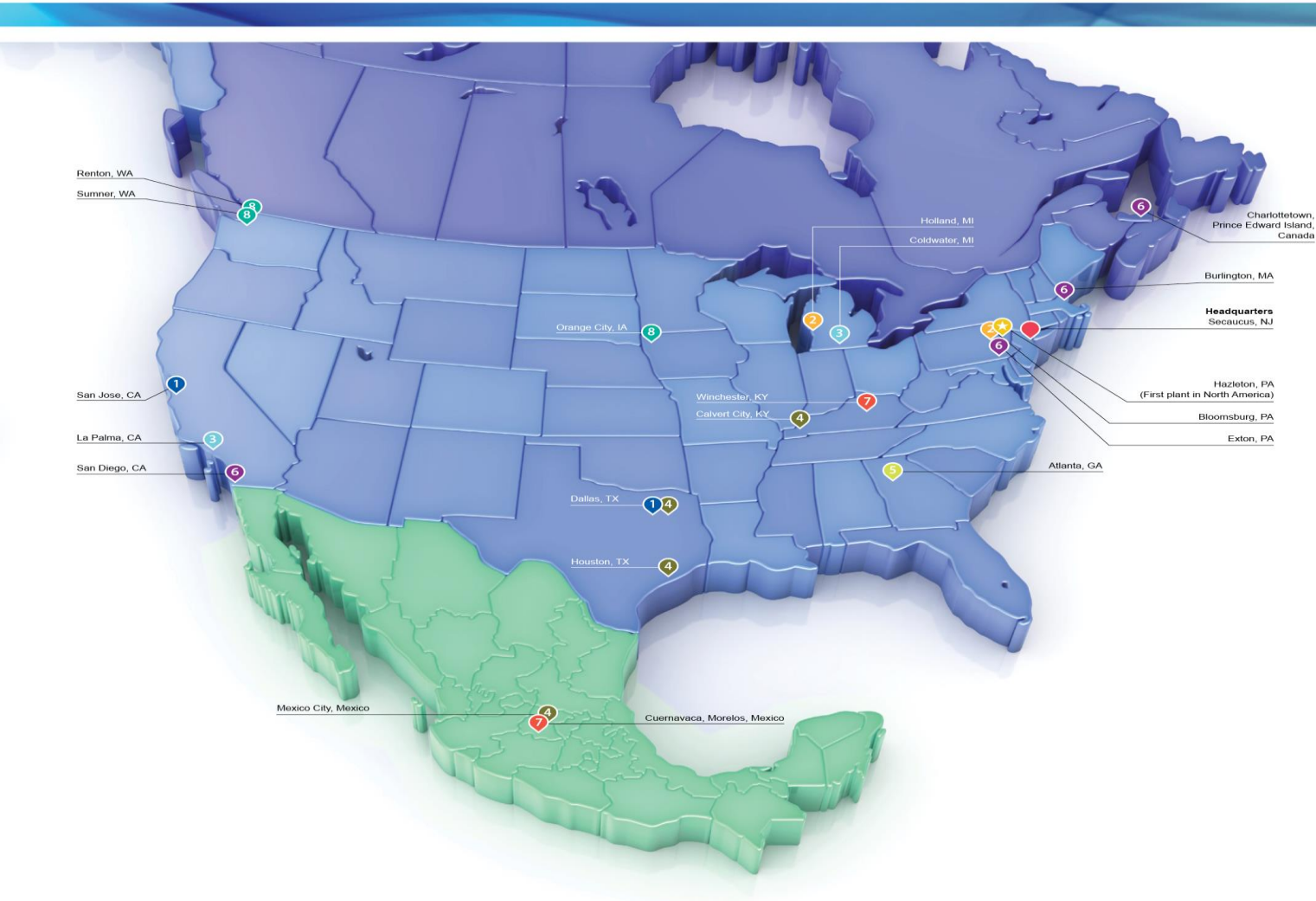
Thermal Insulation

Foam Expo, Novi, MI



SEKISUI

- [Sekisui](#) is a publicly listed Japanese multinational. Established March 1947
- 27,000 employees working for 180 companies worldwide
- Turnover of USD \$10 billion
- Sekisui operates in a variety of industries including IT, Medical, High-Performance Plastics, Automotive, Railways, Housing, Urban Infrastructure, and Chemicals
- Invented **physically crosslinked polyolefin foam technology** in 1967
- Sekisui is now the world's largest manufacturer of polyolefin foam with 7 plants worldwide.



SEKISUI North America companies employ a highly skilled labor force that serves a wide range of industries. Many of our companies share industries and customers, allowing us to collaborate and provide enhanced benefits beyond a single product or service supplier.

	Transportation	Healthcare	Industrial Applications	Construction	Electronics	Aerospace
1 SEKISUI SEKISUI PRODUCTS, LLC						
2 SEKISUI KYDEX						
3 SEKISUI VOLTEK						
4 SEKISUI Specialty Chemicals						
5 SEKISUI SPR Leading-Edge Trenchless Solutions						
6 SEKISUI DIAGNOSTICS "Detect every leak sooner"						
7 SEKISUI S-LEC						
8 SEKISUI SEKISUI AEROSPACE						
★ SEKISUI	In 1963, SEKISUI Chemical became the first Japanese company to manufacture in the United States.					

THERMOBREAK

Thermal Insulation

Setting the Standard
for over 35 years



THERMOBREAK[®]

Thermal Insulation

Setting the Standard for
over 35 Years

- Developed in Australia (1989)
- FIRST insulation with factory applied reinforced foil and adhesive (ALL in ONE system)
- FIRST polyolefin insulation to achieve ASTM E84 fire rating
- FIRST polyolefin insulation to gain FM 4924 Approval
- Manufactured to ASTM C1427 Standard
- Sekisui PHYSICALLY Crosslinked technology



Superior Insulation Properties

- **Lower Thermal Conductivity than any other flexible insulation**

$k = 0.032 \text{ W/mK @ } 23 \text{ C}$

$k = 0.22 \text{ BTU.in/h.ft}^2 \text{ @ } 73\text{F}$

At the same thickness Thermobreak provides up to 18% better insulation thus lower energy costs

- **The lowest vapour permeability of any flexible insulation**

- $(2.3 \times 10^{-15} \text{ kg/Pa.s.m})$

- **0.002 perm-inch**

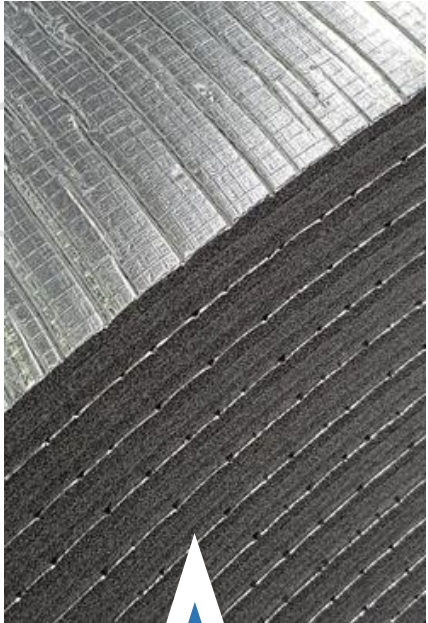
Thermal Conductivity remains relatively constant over a 10-year period without additional vapour barriers

- **Lowest water absorption (<0.1% v/v)**

>95% Closed cell structure

Product Range

Thermobreak Insulation range for all applications



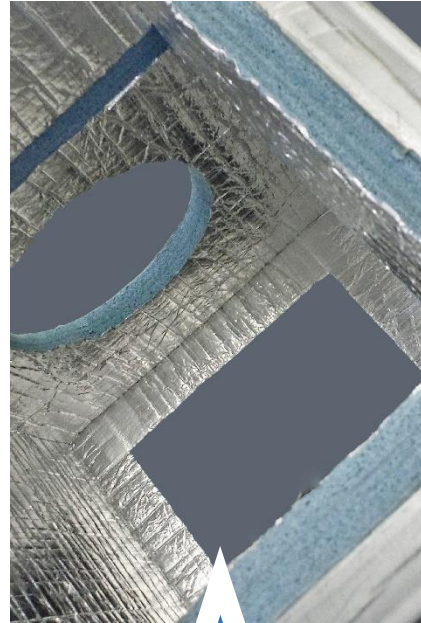
Sheet Insulation

Available in a range of thicknesses with factory applied foil and adhesive



Pipe Insulation

Preformed tube available in both IPS and Copper sizes from 6mm to 273 mm ID



Thermo-Acoustic Insulation

New generation, Open Cell, insulation for Thermo-Acoustic Applications



No Clad External Insulation

Strong reinforcement with UV and Saltwater resistance.

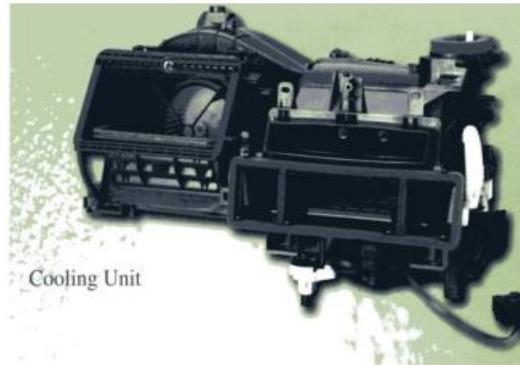


Softlon OPC

Partially open cell foam for gasketing applications

OEM Solutions

- Thermal Insulation
- Acoustic Insulation
- Thermo-Acoustic insulation
- Seals and gaskets





THERMAL INSULATION

THERMOBREAK™ LS

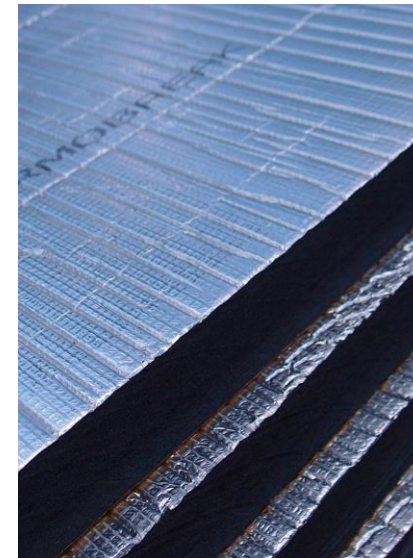
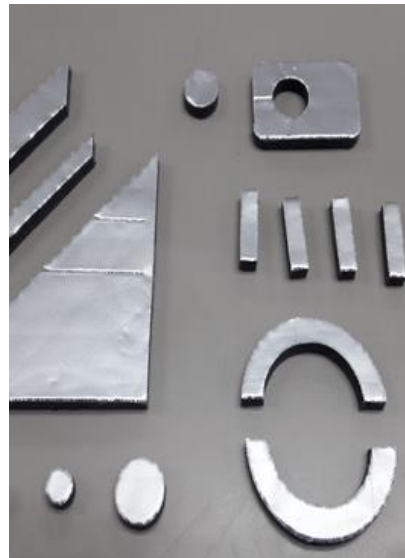
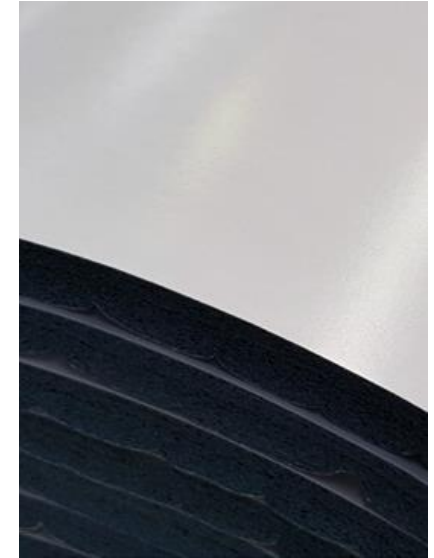
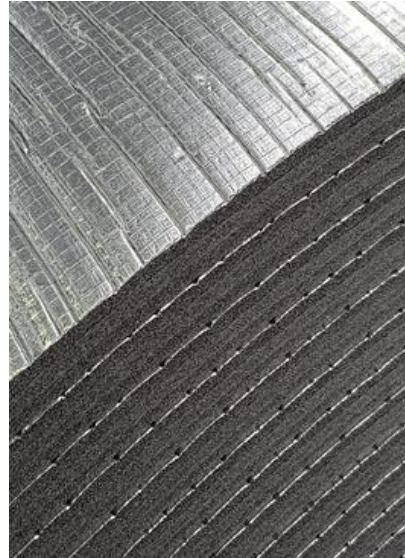
THERMOBREAK® RT
Insulation for Transit Vehicles

THERMOBREAK™ No-Clad



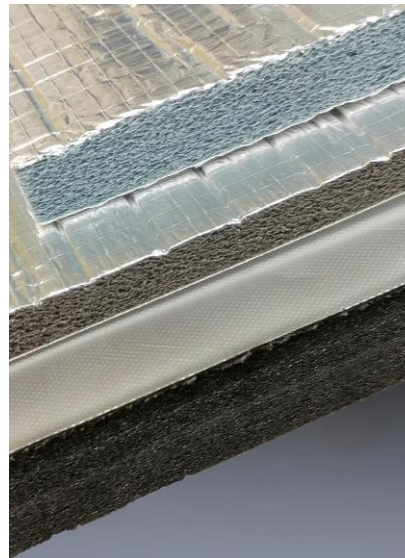
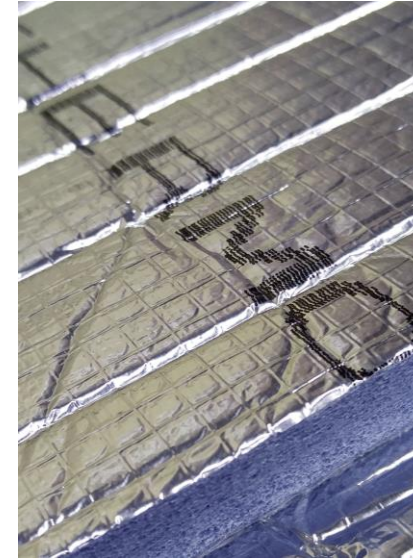
Features

- Physically Crosslinked, Closed Cell Polyolefin foam factory bonded to aluminium foil.
- Optional factory applied adhesive backing (various options)
- Market leading thermal performance
- Almost zero water absorption
- Available in rolls, sheets and pre-formed tubes
- 10-Year Warranty



Properties

- Market leading thermal performance
- Almost zero water absorption - no bacterial growth
- Fibre-Free
- Lightweight
- Very easy to cut using conventional equipment such as CNC, stamping, water jet equipment.
- Complies to major international fire codes
 - ASTM E84 / UL 723 (25/50)
 - NFPA 130 (Transit)
 - UL94 (Equipment)
 - EN 45545-2 (Transit)



Major Applications

- HVAC equipment insulation
- Railway (RT) & Marine (RTM) applications
- Transportation (RT) - Buses, Delivery Vans, Emergency Vehicles, Etc.
- Equipment manufacturer insulation
- Industrial Applications
- Construction

THERMOBREAK®
Thermal & Acoustic Insulation



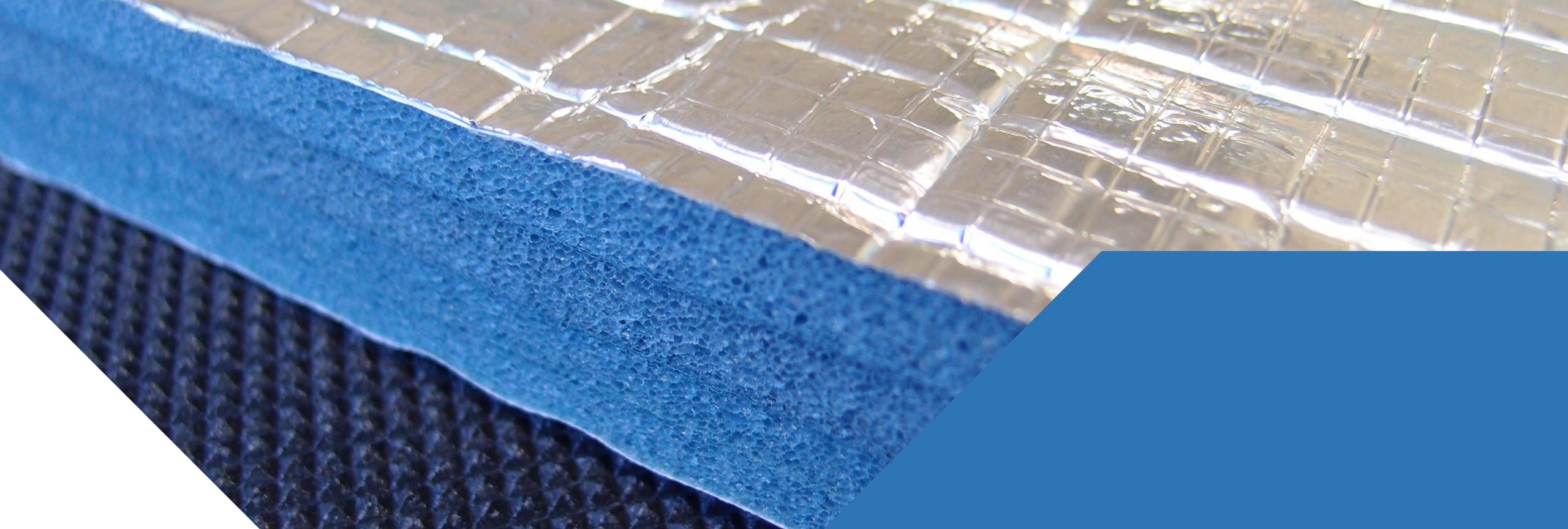
Features

- Pre-Cladded insulation for external application.
- Specialty coating to protect the insulation against UV, Saltwater, and Chemicals.
- Highly reinforced foil provides excellent tear and puncture resistance.
- 10-years warranty .
- Complies with ASTM E84 (25/50) rating.
- No CFC or HCFC
- Fiber-Free
- Low Thermal Conductivity, Vapor Permeability, and Water Absorption.
- Available in sheets and tubes.

THERMOBREAK™ No-Clad

PRE-CLADDED EXTERNAL INSULATION





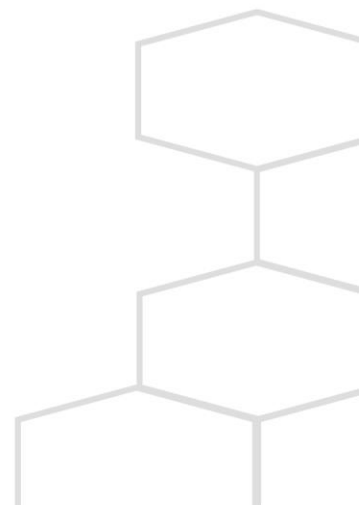
THERMO-ACOUSTIC INSULATION

THERMOBREAK[®] AcoustiPlus

SEKISUI | VOLTEK

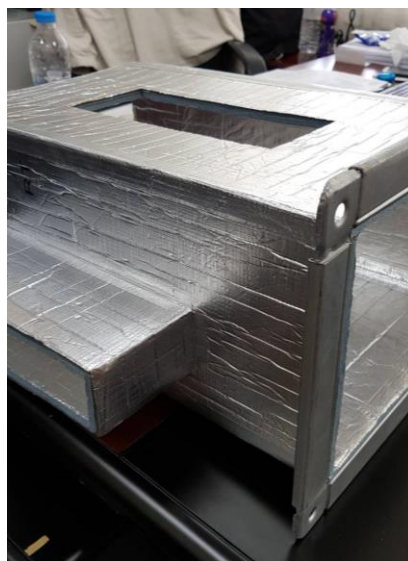
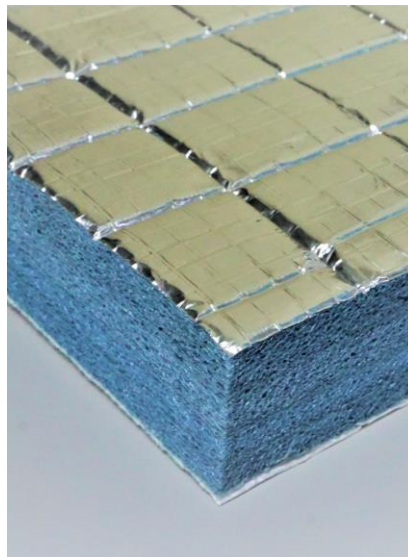
SOFTLON[®] OPC

NEW GENERATION OPEN CELL FOAM



Features

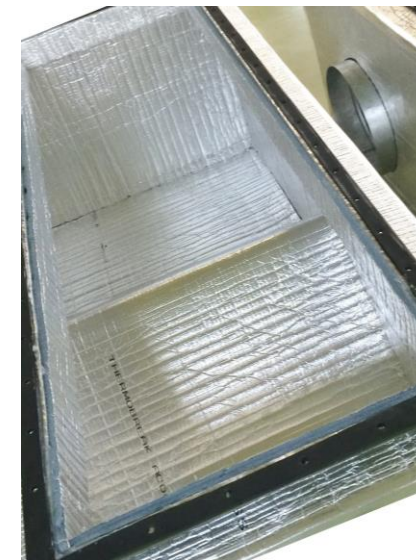
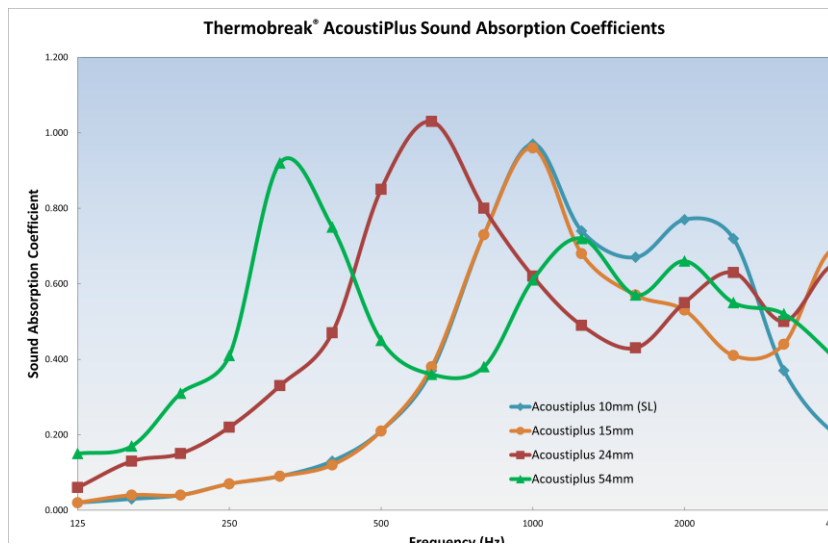
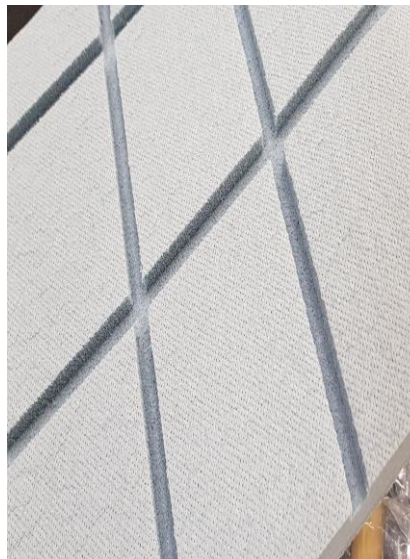
- Partially open cell foam using **unique MPF technology**.
- Unique technology with outstanding features
- Excellent acoustic absorption at low thicknesses
- Very low water absorption (<2%)
- Excellent thermal performance
- Optional factory applied adhesive backing (various options)
- Very flexible
- Complies to major international fire codes
 - ASTM E84 (25/50)
 - NFPA 130 (Transit)
 - UL94 (equipment)
 - EN 454551-2 (Transit)
- Available in rolls and sheets
- 10-Year Warranty software



Benefits

- MPF technology
- Water absorption is extremely low (<2%)
- Ideal for HVAC applications and condensing units where moisture can be a major issue.
- Clean construction.
- Lightweight
- Very easy to cut using conventional equipment such as CNC, Stamping, water jet equipment.
- Complies to major international fire codes
 - Can be used for any projects relating to HVAC, Railways, Marine, and Construction

THERMOBREAK® AcoustiPlus

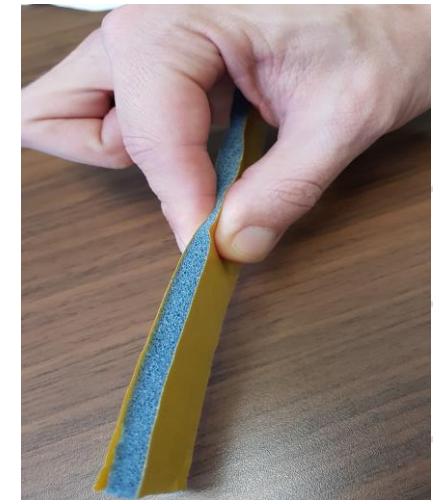


Features

- Softlon® OPC is made from Sekisui's unique physically crosslinked foam technology which results in foam that feels softer and more flexible.
- Unlike conventional open cell PE foams, Softlon OPC is made without crushing the cell structure and skiving the surface. Crushing of the cell structure affects the physical properties of the foam.
- Softlon OPC technology ensures the foam retains majority of its original cell structure, and key physical properties.
- Its smooth skin surface enhances its aesthetic value.
- Available in a range of densities and thicknesses

SOFTLON® OPC

NEW GENERATION OPEN CELL FOAM



Benefits

- Excellent compression and recovery characteristics
- Very low water absorption
- Does not breakdown with moisture
- Excellent sound absorption
- Can be thermoformed
- Available in rolls and sheets with optional factory applied adhesives
- Very easy to cut using conventional equipment such as slitter CNC, Stamping, water jet equipment.

SOFTLON® OPC

NEW GENERATION OPEN CELL FOAM



THERMOBREAK[®]

Thermal Insulation

Performance

- Low Thermal Conductivity (Low Density)
- Low Vapor Permeability (Foil Facing)

Sustainability

- Better resistance against condensation/mold growth. (Low K-Value; Low Vapor Permeability)
- Less Maintenance Costs.

Longevity

- Less change in Thermal Conductivity over a 10-year period. (Low Vapor Permeability)
- 10-Year Warranty, 20-Years Service Life.

Efficiency

- Energy Savings
- Similar performance for longer period

Environment friendly

- ROHS/REACH/LOW VOC/LEED
- No CFC or HCFC

Safety

- Complies with all relevant fire and smoke standards. Third party certifications.
- Smoke Density/Smoke Toxicity.

Energy Savings

- Maintain the same performance for a longer period.
- Thermal Properties won't change drastically. No extra load for HVAC units

Competitive

- All-in-One System (Easy to Install)
- Saves Time; Saves Labor



Thank you