

## TECHNICAL DATA SHEET

### Thermobreak<sup>®</sup> Sheet and Tube

<b>Material:</b>	Physically (irradiation) crosslinked closed cell polyolefin foam with factory applied reinforced aluminium foil and optional pressure sensitive adhesive backing
<b>Density:</b>	25 kg/m <sup>3</sup> (foam core only)
<b>Thermal Conductivity:</b> (ASTM C518)	0.032 W/m.°K (@ 23°C mean temperature)
<b>Water Vapour Permeability:</b> (ASTM E96)	2.3 x 10 <sup>-15</sup> kg/Pa.s.m (0.0084 mg.m/N.h)
<b>Water Vapour Permeance:</b>	1.95 x 10 <sup>-4</sup> g/MN.s
<b>Permeability Resistance Factor:</b>	μ > 80,000
<b>Water absorption by volume:</b> (JIS K6767)	<0.1% v/v (0.00038 g/cm <sup>2</sup> )
<b>Resistance to fungi:</b> (ASTM G21)	Zero Growth
<b>Ozone Resistance:</b>	Excellent
<b>UV Resistance:</b>	Excellent
<b>VOC Emission Rate:</b> (ASTM D5116)	Low VOC emitting ("Green Star")
<b>Noise Reduction Coefficient:</b> (ISO 354)	0.20 (12mm foam thickness) 0.30 (25mm foam thickness)
<b>Operating Temperature Range:</b>	-80 °C ~ +100 °C (no adhesive)
<b>Physical Property Requirements:</b>	COMPLIES (ASTM C1427)

## FIRE AND SMOKE PERFORMANCE

<b>ASTM C411:</b>		<b>COMPLIES (NFPA 90A &amp; B)</b>
<b>ASTM E84:</b>	<b>Flame Spread Index:</b>	<b>COMPLIES (NFPA 90A &amp; B)</b>
	<b>Smoke Developed Index:</b>	<b>&lt;25</b>
		<b>&lt;50</b>
<b>ASTM E162:</b>		<b>COMPLIES (NFPA 130)</b>
<b>ASTM E662:</b>		<b>COMPLIES (NFPA 130)</b>
<b>AS 1530 Part 3</b>	<b>Ignitability Index:</b>	<b>0</b>
	<b>Spread of Flame Index:</b>	<b>0</b>
	<b>Heat Evolved Index:</b>	<b>0</b>
	<b>Smoke Developed Index:</b>	<b>0 – 1</b>
<b>AS 3837</b>	<b>BCA Group Number:</b>	<b>1</b>
	<b>Smoke Index:</b>	<b>≤250</b>
<b>BS 476 Parts 6 &amp; 7:</b>		<b>CLASS 0</b>
<b>BS 6853 Annex B</b>	<b>Smoke Toxicity</b>	<b>COMPLIES (R &lt; 1.0)</b>
<b>IMO MSC 61(67) Part 2</b>	<b>Smoke Toxicity</b>	<b>COMPLIES</b>
<b>ISO 5659 Part 2</b>	<b>Smoke Density</b>	<b>COMPLIES (IMO MSC 61(67) Part 2)</b>
	<b>Smoke Toxicity</b>	<b>D<sub>m</sub> &lt; 200</b>
		Satisfies max allowable concentrations for the following combustion gases: CO, HCl, HBr, HF, HCN, NO <sub>x</sub> , SO <sub>2</sub>
<b>UL 94</b>	<b>Horizontal Burn</b>	<b>UL APPROVED (HF-1)</b>

## TOLERANCES

The following tables list tolerances for thickness, density and width of standard Thermobreak<sup>®</sup> products:

<b>Thickness</b>	
<b>Nominal Thickness</b>	<b>Tolerance</b>
5mm	-0.5mm / +1.0mm
6mm	-0.5mm / +1.5mm
8mm	-1.0mm / +1.5mm
10mm	-1.0mm / +1.5mm
12mm	-1.0mm / +1.5mm
15mm	-1.0mm / +2.0mm
20mm	-1.0mm / +2.0mm
25mm	-1.0mm / +2.5mm
30mm	-1.0mm / +2.5mm
35mm	-1.0mm / +2.5mm
40mm	-1.5mm / +3.0mm
45mm	-1.5mm / +3.0mm
50mm	-2.0mm / +3.5mm
Other thicknesses and/or tolerances subject to confirmation.	

<b>Density* (foam only)</b>	
<b>Nominal Density</b>	<b>Tolerance</b>
25 kg/m <sup>3</sup>	± 10%
*Applies to the foam core. The density of Thermobreak with reinforced aluminium foil will be higher.	

<b>Width (Sheet)</b>	
<b>Nominal Width</b>	<b>Tolerance</b>
1000mm	-0 / +20mm
1200mm	
1500mm	
Other widths and/or tolerances subject to confirmation.	

## COUNTRY OF MANUFACTURE

Thermobreak<sup>®</sup> Sheet and Tube insulation is manufactured in Australia and Thailand.

## ENQUIRIES

If you require any further information, please consult your local distributor or contact us at

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This information on Sekisui Foam International products is presented to the best of our knowledge. All product data is based on average values and is for guidance only. As these products are subject to constant research and development, we reserve the right to update the contents without notice.

Recommendations as to methods of post fabrication, application and use of Sekisui Foam International products are based on our experience and knowledge of the characteristics of our products and are given in good faith. As producer of the material we have no control over the application of Sekisui Foam International products and no legal responsibility is accepted for such recommendations. In particular, no responsibility is accepted by us for any system in which Sekisui Foam International products are utilised or for any application.

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