

Siderise® Lamacell thermal insulation

Application

SIDERISE® Lamacell thermal insulation is a flexible closed cell material offering excellent isolation qualities.

The product is used in many varied applications and industries including construction, marine, automotive, HVAC and OEM.

Common applications include pipe lagging, duct insulation, thermal insulation for chilled services, heating ducts and pipes. Can be used as resilient spacing layer or as fixed gasket.

Product description

SIDERISE® Lamacell thermal insulation is an elastomeric rubber; black in colour with a smooth tough outer skin and due to its flexibility is easily applied to curved surfaces or deformed to fit complex shapes.



Acoustic Performance

Table 1: Laboratory Measurement of Random Sound Absorption to BS EN ISO 354:2003

Thickness	Practical Sound Absorption Coefficient, α_p					
	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz
6	0.00	0.00	0.05	0.10	0.20	0.40
10	0.00	0.05	0.10	0.20	0.60	0.50
19	0.00	0.10	0.25	0.70	0.50	0.40
25	0.10	0.20	0.75	0.65	0.55	0.50
32	0.10	0.40	0.85	0.45	0.60	0.60

Fire Performance

Table 2: Flammability / Reaction to Fire Performance

Property	Test Method	Result
Reaction to Fire	EN13501-1 ⁽¹⁾	B-s3,d0 (3mm-50mm)
Reaction to Fire (Rail)	EN45545-2	HL1 (option up to HL3)
Reaction to Fire (PSV)	UN reg R118	Annex 8 pass ⁽²⁾
Flammability-vertical	UL94 V0	Pass ⁽³⁾ (2.4mm,12.2mm)
Flammability-horizontal	UL94 HF1	Available as option

⁽¹⁾BS476 pt6 and 7 are no longer used in Building Regulations but test reports to show compliance to the class 0 criteria are available. Generally, compliance to EN13501-1 B class is accepted as exceeding the class 0 requirement and is controlled by supplier DoP. [Test reports although renewed were originally 2012-2016]

⁽²⁾3mm-<13mm adhered to 1mm aluminium substrate, ≥13mm both sides exposed. Annex 8 also covers compliance to Annex 6 and we have supporting evidence to show compliance to Annex 7 and Annex 9 (further testing planned)

Thermal Performance

Table 3 Thermal conductivity

Temperature & Thickness	Test Standard	Thermal Conductivity, W/(m.K)
λ @ 0°C (thickness 3-25mm)	EN12776	≤0.033
λ @ 40°C (thickness 3-25mm)	EN12776	≤0.037
λ @ 0°C (thickness 26-50mm)	EN12776	≤0.036
λ @ 40°C (thickness 26-50mm)	EN12776	≤0.040

Technical Specification

Table 4: Technical specification

Form supplied (mm)		Roll width: 1000 nominal. Other forms: Linear 3D sections and die-cut parts
Standard thickness (mm)		3, 6, 9, 13, 19, 25, 32 Other thickness may be available on request.
Composition		Closed cell foamed nitrile rubber
Colour		Black
Operating temperature range	EN14706	-40°C to +85°C
Density		50 kg/m ³ ±10%
Elongation	ASTM D 412-06ae2	106%
Typical Compressive Force	ASTM D-1056	15-20kPa at 25% compression
Water Vapour Permeability	EN12086	≥10,000μ
Corrosive substance release	EN13468	Cl<500ppm, pH=7*

Installation

The material is normally adhered to the background surface using a separate adhesive or by means of the optional pressure-sensitive adhesive backing.

Additionally, the product can be mechanically fixed using large headed fixings or spreader washers. Our insulation support pins, and non-return washers are suitable fixings.

Please contact our technical team for advice on suitable adhesives and mechanical fixings.

Environmental

SIDERISE® Lamacell thermal insulation has a GWP less than 5.

SIDERISE® Lamacell thermal insulation has an ODP of zero

Additional Options Available

- Can be supplied with high performance acrylic pressure-sensitive adhesive (PSA) backing.

Technical Support

Sales team: E: sales.sspl@siderise.com, T: +44 1473 827695

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Context

The information in this datasheet is believed to be accurate at the date of publication. Siderise has a policy of continuous product improvement and reserves the right to alter or amend the specifications of products without prior notice. Siderise does not accept responsibility for the consequences of using the products described outside of the recommendations within this datasheet. Expert advice should be sought where there is any doubt about the correct specification or installation of Siderise products.



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