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Barrier Mats

T5

Description

Barrier Mats are manufactured from a durable, flexible polymeric material.
They are designed to add mass to building elements, equipment or automotive components, acting as acoustic barriers to reduce noise transmission.
Barrier Mats are available in rolls or sheets and can be die-cut to size and shape.

Colour - See overleaf

Design and Application

U5

U5 Is a highly flexible, polymeric barrier mat.It is used extensively in the building services industry to add mass and reduce noise break out from pipes, ducts and other equipment, and by automotive manufacturers to improve the sound insulation of vehicle floors and bulkheads.

T5 Is a highly flexible, polymeric barrier mat with a Class 'O' foil facing on one side.It is used extensively in the building services industry to add mass and reduce noise break put from pipes, ducts and other equipment, and by automotive manufactures to improve the sound insulation of vehicle floors and bulkheads.

BM 5N & 10N

BM 5N & 10N Are highly flexible, polymeric barrier mats incorporating additional mineral fillers to increase the product's
mechanical strength and durability.

They are used extensively in the building industry to improve the sound insulation of existing partition walls. They are particularly effective at reducing Coincidence Dip on lightweight composites e.g. plasterboard.

Operating Temperature

Barrier Mats can be used at continuous operating temperatures up to 65°C.

Fire Performance

T5 Complies with the Class 'O' requirements of the Building Regulations, when tested to BS476: Pare 6: 1981 and Part 7: 1987
U5, BM 5N and BM 10N meet the requirements of FMVSS 302/ISO3795.

Acoustic Performance

Product	Sound Transmission dB(ISOR140)					
	100 Hz	200 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
U5	12	12	21	27	30	34
T5	12	12	21	27	30	34
BM5N	12	12	21	27	30	34
BM10N	20	20	28	32	36	40

Dimensions and Density

Product	Thickness mm	Density kg/m³	Colour	Roll/Sheet size
U5	2	5	buff	1200x2000/sheet
T5	2	5	Buff with Silver face	1200x2000/sheet
BM5N	2.5	5	Black	1000x10m/roll
BM10N	4.5	10	Black	1200x2000/sheet

Application and Fixing

When fixing Barrier Mats to mechanical services they should be wrapped around pipes and ductwork incorporating a minimum 50mm overlap on all joints. They should be supported with non-metallic banding and/or an outer layer of wire mesh or similar.
When applying to other substrates such as timber, steel or aluminium, Barrier Mats should be fixed into position using 1099 contact adhesive available from Hodgson & Hodgson Group Ltd. Where more than one mat is required, tightly butt joints together.

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CoustiLam

Description

Coustilam comprises a range of composite products manufactured from with a lead or polymeric barrier. Products are available with various surface finishes to suit a wide range of applications.

Each product is designed for use in applications where there is a requirement for both sound insulation and sound absorption.

CoustiLam is available in sheets and can be die-cut to size shape.

Colour : F and FX - Grey
NFX,CVA-O and Marine - Black

Product Range and Application

CoustiLam F — Is designed for general purpose applications to absorb sound and reduce sound transmission. It is manufactured from two layers of polyurethane foam with a lead core ensures the material retains its shape on curved surfaces. CoustiLam F is used extensively in compressors, machine tools, hoods and covers, acoustic enclosures and fans.

CoustiLam FX — Is designed for general purpose applications to absorb sound and reduce sound transmission. It is manufactured from two layers of polyurethane foam with a polymeric barrier core and a wide range of surface finishes as detailed overleaf. CoustiLam FX is used extensively in compressors, machine tools, hoods and covers, acoustic enclosures and fans.

CoustiLam NFX — Is designed to absorb sound and reduce sound transmission in applications where there is a requirement for a Class 'O' fire rated product. It is manufactured from two layers of Class 'O' polyurethane foam with a polymeric barrier core and a Class 'O' foil surface finish, CoustiLam NFX is used extensively in building services applications.

CoustiLam CVA-O — Is designed to reduce room to room noise transmission through the void behind suspended ceiling systems. It is manufactured from two layers of Class 'O' polyurethane foam with a lead barrier core.

CoustiLam Marine — Has been specifically designed to meet the combined requirements for noise control, fire rating and low smoke and toxicity emissions in marine applications. It is manufactured from two layers of Class 'O' polyurethane foam with a lead barrier core and Class 'O' foil facing on one side. CoustiLam Marine is used extensively in engine rooms, accommodation areas, bulkheads, under decks and hull plates.

Acoustic Performance

Product	Thickness mm	Sound Transmission Loss					
		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
CoustiLamF	32	26.5	26.5	24.5	36	49.5	54
CoustiLamFX	34	26.5	26.5	24.5	36	49.5	54
CoustiLamNFX	34	26.5	26.5	24.5	36	49.5	54
CoustiLamCVA-O	12	26.5	26.5	24.5	36	49.5	54
CoustiLamMarine	21	26.5	26.5	24.5	36	49.5	54

Dimensions and Density/Weihgt

Product	density/weight		overall Thickness mm	sheet size mm
	foam kg/m^3	barrier core kg/m^2		
CoustiLamF	28 - 32	5or10	32	2000x1200
CoustiLamFX	28 - 32	5or10	34	2000x1200
CoustiLamNFX	75	5or10	34	2000x1200
CoustiLamCVA	75	5or10	12	2000x1200
CoustiLamMarine	75	5or10	21	2000x1200

Availability: CoustiLam F, FX and NFX are available with a wide range of facings. These include:

type of facing	main benefit of facing	colour	ordering reference
polyurethane	durable & impervious	black	C
PVC coated woven glass cloth	class 1 fire rating	black or grey	VK
aluminised polyester film	reflective & impervious	silver	A
perfoated vinyl	decorative & durable	black or grey	V
unperforated vinyl	decorative & durable	black or grey	VUP
PVC spray coating	can be sprayed on edges	matt black	SB
Tedlar film	hygienic & durable	white	TW
polychloroprene glass cloth	class "O" fire rating	beige or green	CG

Application and Fixing instructions

To ensure optimum performance from the application of CoustiLam products, it is important to follow the instructions below:

1. Fix CoustiLam to the substrate to be insulated in a well ventilated area.
2. Clean & dry the substrate to which the CoustiLam is to be applied with an appropriate cleaner to ensure the surface is free from oil, grease, rust, dust, flaking paint or any other particles.
3. Apply a liberal coat of 1099 contact adhesive(available from Hodgson & Hodgson Group Ltd) to the surface of the substrate & the underside surface of the CoustiLam.
4. Allow the adhesive to cure until tacky before pressing the CoustiLam onto the substrate.
5. CoustiLam should be bent around corners & jointed on a flat surface using an overlap joint.
6. When more than one sheet of CoustiLam is required to cover the surface, overlap any joints by 50mm. This can be achieved by paring back the lower layer of foam form the top sheet & the upper layer of form the bottom sheet. Butt jointing CoustiLam is not recommended as this will create a flanking path for noise transmission.
7. Seal joints with VK, TW o A tape (available from Hodgson & Hodgson Group Ltd).
8. When using CoustiLam with 10kg barrier core or applying the material to the underside of a substrate, it is advisable to use 20mm Bighead Fasteners with metal washers (available from Hodgson & Hodgson Group Ltd) at 500mm spacings to provide additional mechanical support.

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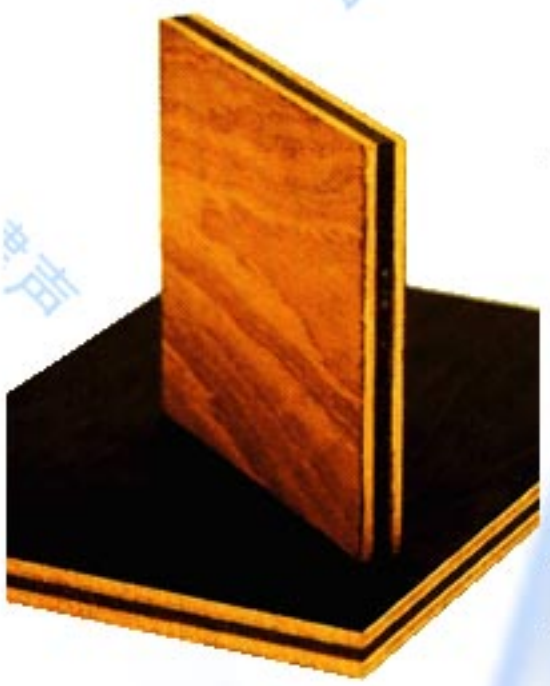


CoustiBoard

Description

CoustiBoard is a lightweight, self-supporting panel, manufactured from two layers of WBP marine grade plywood, with a 5mm cork-elastomer damping core and a Gaboon veneer surface finish. Virtually any wood veneer is available to co-ordinate with interior design features. Metal, melamine or phenolic resin glass laminate facings can be incorporated to improve fire ratings. It is designed to absorb noise and reduce sound transmission loss through walls, partitions and bulkheads.

CoustiBoard is available in flat sheets and can be manufactured with pre-formed curves and bends to a maximum of 90°and with a minimum 50mm radius.

Colour -Virtually any wood veneer finish

Application

CoustiBoard is used extensively on floors, walls, partitions and bulkheads of buses, coaches, trains and boats.

Operating Temperature

CoustiBoard is suitable for use at normal building temperatures.

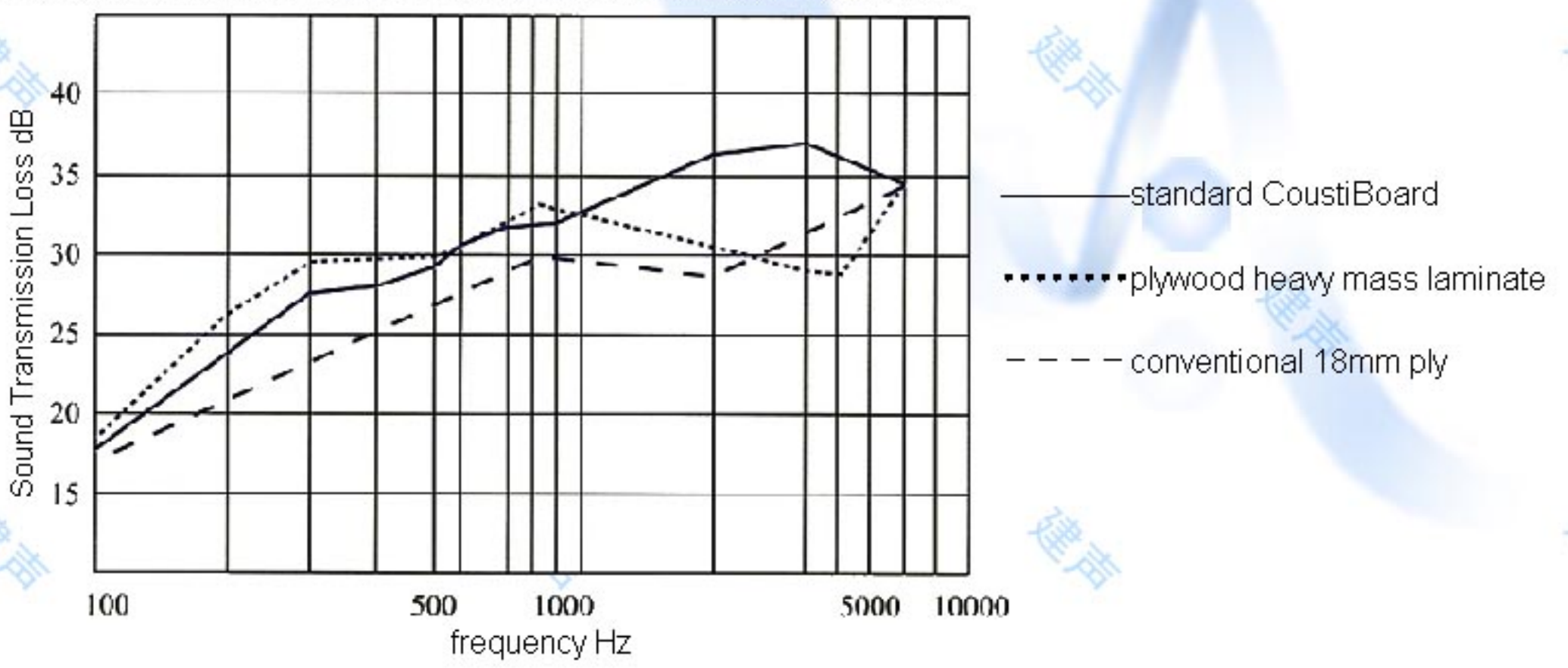
Acoustic Performance

Product	Thickness mm	Sound Transmission Loss					
		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
CoustiBoard	17	24	27	28	33	36	36

Dimensions and Weight

ordering reference	Thickness mm	weight kg/m^2	board size mm
CoustiBoard Panels	17	12	1200x2400standard up tp 4800x2440 to order
CoustiBoard Shapes	17	12	maximum 90º , with a minimum 50mm radius

The graph below compares the acoustic performance of Coustiboard with a heavy mass plywood laminate and conventional 18mm plywood



Availability

Other surface finishes including phenolic resin glass laminate with a Class 'O' fire rating are available subject to minimum order quantity. Further detail available on request.

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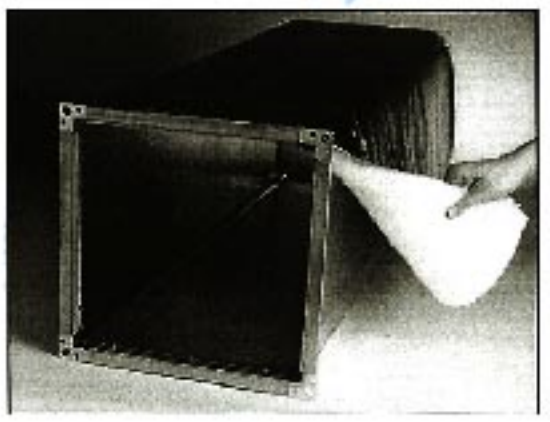
DuctLag



Description

DuctLag Acoustic Blankets comprise a range of products manufactured from various combinations of glass fibre, melamine foam, polyester blanket, lead or polymeric barriers. The resulting composite panels are faced one side with a reinforced Class 'O' aluminium foil.

They are designed to control noise break-out from rectangular or circular ductwork and pipes by isolating noise within the duct or pipe from the outside environment.

Colour Outer surface finish - Silver

Design and Application:

DuctLag A — Is manufacture from two layers of glass fibre with a lead core .It is extremely flexible and forms easily around curved surfaces .The inner layer of fibre is quilted with a scrim backing and the outer layer is faced with a Class 'O' aluminium foil. DuctLag A is suitable for use in applications requiring high levels of thermal and acoustic insulation.

DuctLag T — Is a composite panel manufactured from profiled melamine foam adhered to a barrier mat with a Class 'O' aluminium foil on the outer face. The profiled inner face enable square corners to be formed on the edges of rectangular ductwork. DuctLag H is suitable for use in 'clean rooms' and hygienic areas and is used extensively in hospitals pharmaceutical plants and food production factories.

DuctLag P — Is a cost-effective, non-irritating layer of polyester adhered to a barrier mat with Class 'O' aluminum foil on the outer face.

DuctLag H — Is a singe layer of acoustic barrier mat with a Class 'O' aluminium foil on the outer surface.

Operating Temperature
The outer face of DuctLag Acoustic Blankets can with stand direct with temperature up to 90°C.

Fire Performance
Ductlag Acoustic Blankets comply with the Class 'O' requirements of the Building Regulations, when tested to BS476: Part6: 1981 and Part 7: 1987.

Thermal Conductivity	Ductlag A and P 0.037	W/mK @ 10℃
Acoustic Performance	Ductlag H 0.035	W/mK @ 10℃

The Figures below are typical of a cross section of 200mm ductwork:

Product	insulation thickness mm	barrier weight kg/m²	typical reduction in noise breakout dB					
			125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
DuctLag A,H,P	12	5	4	1	8	16	18	20
	25	5	1	4	12	17	19	21
	50	5	2	6	14	18	20	23
	12	10	2	5	12	18	22	23
	25	10	4	6	16	20	24	25
	50	10	4	10	18	22	26	29

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DuctLag

Dimensions Density and Weight

Product	nominal thickness mm	blanket size mm	density of insulation kg/m³	weight of barrier kg/m²	ordering reference
DuctLag A	25	2000x1200	glass fibre inner face	5	A512
	50	2000x1200	16 kg/m³	5	A525
	75	2000x1200	glass fibre inner face	5	A550
	25	2000x1200	24 kg/m³	10	A1012
	50	2000x1200		10	A1025
	75	2000x1200		10	A1050
DuctLag H	12	2000x1200	melamine foam	5	H512
	25	2000x1200	9.5 kg/m³ ±1.5	5	H525
	50	2000x1200		5	H550
	12	2000x1200		10	H1012
	25	2000x1200		10	H1025
	50	2000x1200		10	H1050
DuctLag P	12	2000x1200	polyester blanket	5	P512
	20	2000x1200	15 kg/m³	5	P525
	40	2000x1200		5	P550
	12	2000x1200		10	P1012
	20	2000x1200		10	P1025
	40	2000x1200		10	P1050
DuctLag T	2.5	2000x1200	n/a	5	T5

Application and Fixing

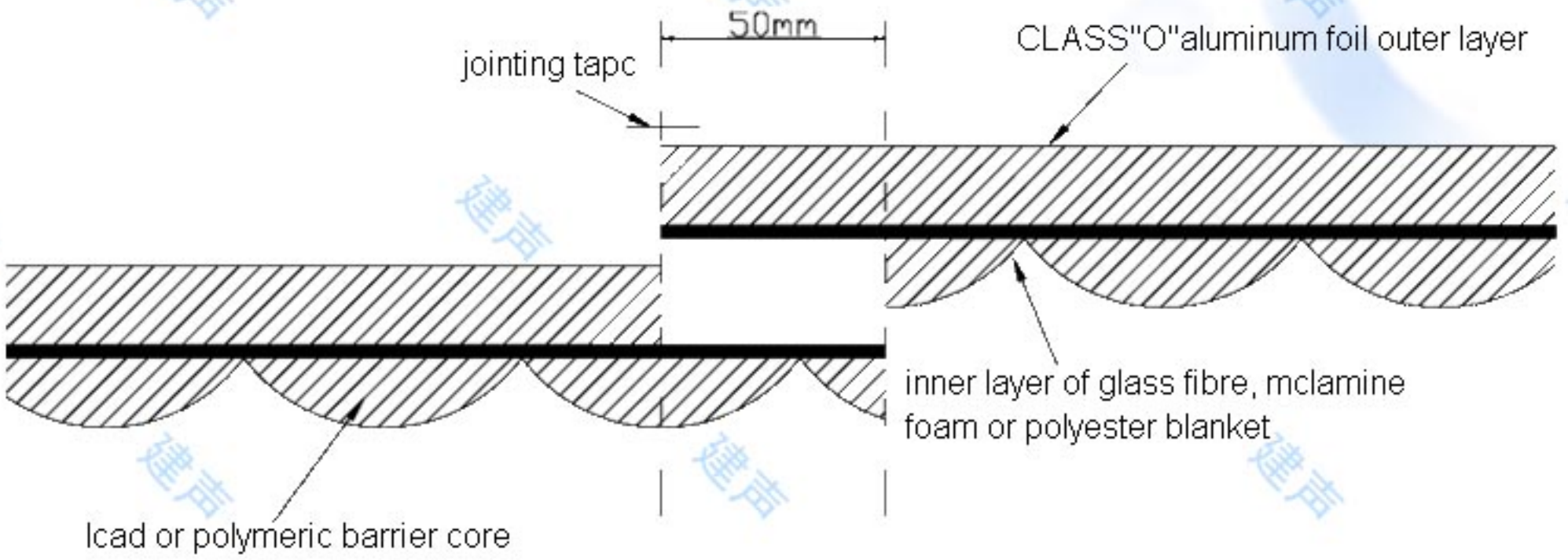
To ensure optimum performance from the application of DuctLag Acoustic Blankets it is important to follow these instructions.

DuctLag A, H and P

1. Wrap DuctLag around the ductwork or pipe taking care to overlap the lead barrier by at least 50mm. This can be achieved by paring back the lower layer of glass fibre, melamine foam or polyester blanket from the quit and the upper layer of the glass fibre, melamine foam or polyester blanket from the lower quit. This will expose the lead barrier cores enabling them to be overlapped as shown in the diagram below.
2. Seal the joints with DuctLag jointing tape available from Hodgson & Hodgson Group Ltd.
3. Where more than one blank of DuctLage is required to complete the application, the lead barrier core should be overlapped along all joint as detailed above.
4. Carefully cut DuctLag around any valves, brackets or other penetration, ensuring it fits tightly around the obstructions. Seal all the joints with DuctLag jointing tape. Failure to create a snug fit between the DuctLag and the obstruction as well as sealing the joints could adversely effect the acoustic performance.
5. Support DuctLag around the ductwork or pipe using either non-metallic banding at 500mm spacings or tightly wrapped wire netting

DuctLag T

6. Wrap DuctLag T around the ductwork or pipe taking care to overlap both vertical and horizontal joints by at least 50mm.



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Acoustic HeatShields

Description
M949 Acoustic HeatShields are manufactured from long strand glass fibre needlemat, faced one side with reinforced aluminium foil with self-adhesive backing on the reverse.
M1019 Acoustic HeatShields incoporate an additional polymeric barrier core to further improve sound transmission performance.
They are designed to provide both thermal and acoustic insulation in areas exposed to extreme variations of temperature and high levels of noise emission from metal surfaces. Acoustic HeatShields are available in sheets or can be die-cut to size and shape.

Colour Outer face Silver
Inner face White

Application
Acoustic HeatShields are used extensively in hot, noisy environments such as power generation plants, industrial burners, compressors, marine rooms, military vehicles, earth moving equipment, aircraft, commercial transport and railway rolling stock..

Operating Temperature
The adhesive face of Acoustic HeatShields can be used at continuous temperatures up to 180 ℃. The reflective face can withshand radiant heat up to 250℃.

Thermal Conducitivity - 0.035 W/Mk @ 10℃

Acoustic Performance

Product	Sound Transmission Loss (Tested to BSEN 20354:1993)					
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
M949 Acoustic HeatShields	13	20	23	24	30	37
M1019 Acoustic HeatShields	32	38	39	34	37	42

Dimensions and Density

ordering reference	Thickness mm	weight kg/m^2	sheet size mm
M949	7	2.4	1000x1600
	12	4.9	1000x1600
M1019	16	11.5	1000x1600

Fire Performance
Acoustic HeatShields comply with the Class 'O' requirements of the Building Regulations, when tested to BS476: Part6: 1981 and Part 7: 1987.
They also meet the requirements of FMVSS 302/ISO3795.

Storage and Handling
M1019 Acoustic HeatShields should be stored in dry conditions and in an ambient temperature between 18℃ and 25℃. This is to ensure the polymeric barrier core remains flexible for ease of application.