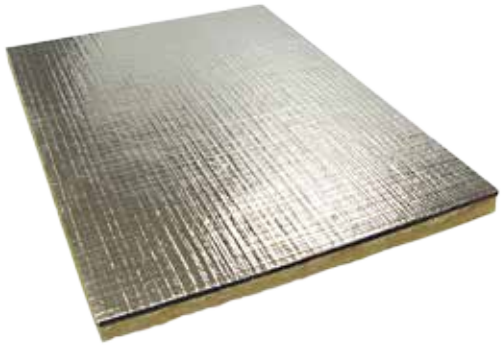
CMSDANSKIN ACOUSTICS

SUPERLAG TYPE PRIME

TECHNICAL INFORMATION SHEET



Benefits

- Easy and quick to apply.
- Excellent acoustic performance.
- Applied as a single layer treatment.
- Excellent fire resistance & temperature stability.
- Highly durable.
- Low thermal conductivity.
- Low toxicity.

Applications

CMS Danskin Acoustics SuperLag Prime is a highly efficient acoustic insulation lagging for ductwork, pipes, enclosures and similar applications where a considerable reduction in the passage of noise is required, combined with ease of application.

Description

CMS Danskin Acoustics SuperLag Prime is a flexible material consisting of a three part laminate, incorporating a spacer or isolating layer, a heavy mass layer and an outer flame/vapour barrier meeting Class '0' of the UK Building Regulations. Being of a laminated construction it overcomes the need for a separate isolation layer normally required beneath most forms of acoustic lagging.

Technical Information

CMS Danskin SuperLag Prime conforms to the following specifications:

Glass fibre spacer density	16-24 kg/m^3 nominal
Operating temperature	-30 to 100ºC (230 ºC Short Term)
Chemical resistance	Oils, water, most solvents
Fire resistance	Class '0' Building Regulations B2/3/4 Appendix A. Foil Faced
Thermal Conductivity	0.037 W/mºK to BS 4745 1990
R Value	25mm= 0.65m^2/Kw 50mm= 1.35m^2/Kw

Physical Information

Dimensions

Standard sheet size: 2m x 1.2m
Other sizes are available upon request.

Grades

CMS Danskin SuperLag Prime is available in four grades to suit different performance requirements:

Grade	Barrier Mass (kg/m^2)	Thickness (mm)
SuperLag Prime 5/25	5	20
SuperLag Prime 5/50	5	37
SuperLag Prime 10/25	10	25
SuperLag Prime 10/50	10	40

Acoustic Performance

CMS Danskin Acoustics SuperLag Prime is a high performance material that has been acoustically tested at certified independent test laboratories.

Tested and Rated according to:

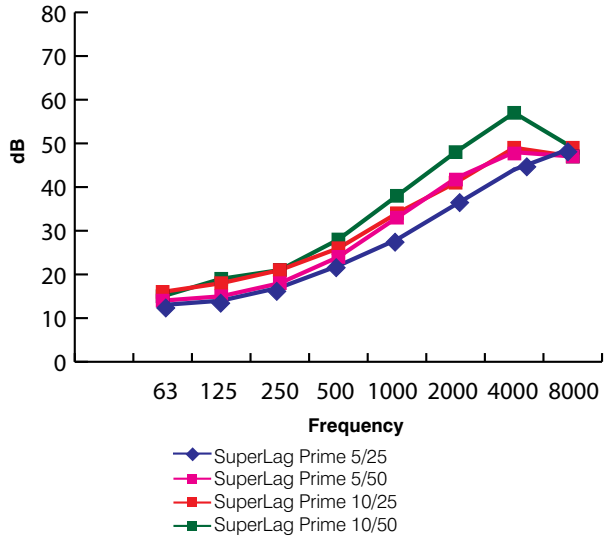
BS EN ISO 717-1-1997

BS EN ISO 10140-2-2010

Sound Reduction Index (SuperLag Prime only, no supporting materials)

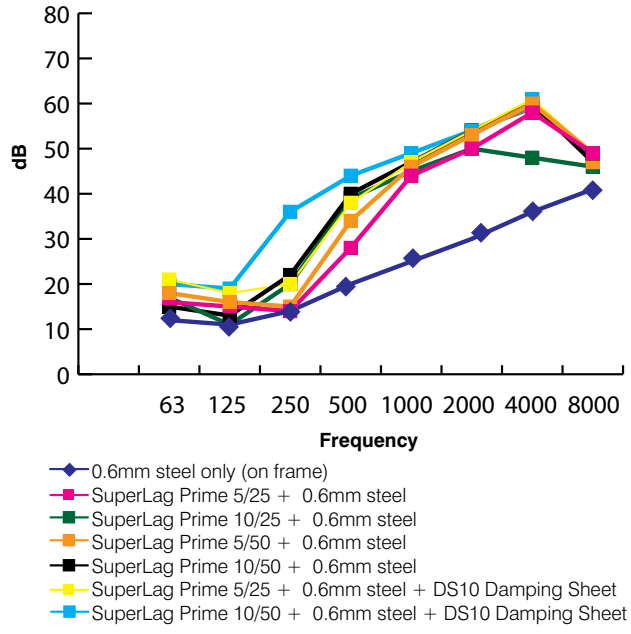
Material \ Frequency	63	125	250	500	1k	2k	4k	8k
SuperLag Prime 5/25	13	14	17	22	28	36	44	49
SuperLag Prime 5/50	14	15	18	24	33	42	48	47
SuperLag Prime 10/25	16	18	21	26	34	41	49	47
SuperLag Prime 10/50	15	19	21	28	38	48	57	49

Acoustic Performance Continued



Sound Reduction Index (SuperLag Prime only, with supporting materials)

Material\Frequency	63	125	250	500	1k	2k	4k	8k
0.6mm steel only (on frame)	12	11	14	20	25	30	36	41
SuperLag Prime 5/25 + 0.6mm steel	16	15	14	28	44	50	58	49
SuperLag Prime 10/25 + 0.6mm steel	18	16	15	34	46	53	60	49
SuperLag Prime 5/50 + 0.6mm steel	17	11	20	38	47	54	61	49
SuperLag Prime 10/50 + 0.6mm steel	15	13	22	40	47	54	60	47
SuperLag Prime 5/25 + 0.6mm steel + DS10 Damping Sheet	21	18	20	39	45	50	48	46
SuperLag Prime 10/50 + 0.6mm steel + DS10 Damping Sheet	20	19	36	44	49	54	59	48



Acoustic duct lagging is a complex subject with the size, shape, thickness and configuration of the ductwork all having a significant effect on the system performance. The data shown above is based on flat panel tests used for SuperLag Primel products.

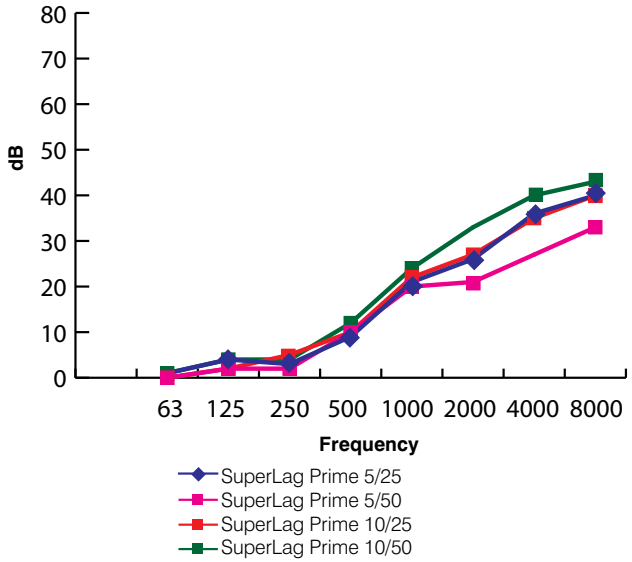
Similar tests carried out on ducting will generally produce similar or slightly lower levels of performance.

Selection Guidelines

CMS Danskin Acoustics have recognised the complex problems associated with noise breakout from ductwork and have developed performance data from laboratory test results. This performance data predicts, as closely as possible, the minimum likely improvement achievable by lagging a duct with SuperLag Prime insulating materials.

The data below is based on 1mm thick ductwork of 3.5m length and 200mm diameter cross section, and indicates the actual improvement of the SuperLag Prime, with the noise reduction of the original untreated ductwork being removed from this performance data.

Material\Frequency	63	125	250	500	1k	2k	4k	8k
Prime 5/25	1	4	3	9	21	26	36	40
Prime 5/50	0	2	2	10	20	21	27	33
Prime 10/25	0	2	5	10	22	27	35	40
Prime 10/50	1	4	4	12	24	33	40	43



The acoustic performance of CMS Danskin Acoustics SuperLag Prime can further enhanced by applying on top of a layer of glass fibre slab up to 300mm thick where very high performance levels are required.

To boost the performance and reduce low frequency noise breakout, CMS Danskin Acoustics DS type damping sheet should be applied to the ductwork before installing the SuperLag Prime.

Installation Guidelines

The method required in the fitting of SuperLag Prime insulation is dependent on several factors.

1) The size and circumference of the duct.

2) The shape of the duct -rectangular or round.

3) The ambient temperature and temperature within the duct normal and maximum.

4) The location of the duct inside or outside

Circular ductwork

Round ducts where one sheet of SuperLag Prime will completely lap the circumference can be insulated without the need for adhesives or extra mechanical fixings. Mating edges are sealed with a foil faced adhesive tape to match the finish required.

The SuperLag Prime insulation can be secured to large round ducts using proprietary banding systems, in conjunction with the edge tape.

Rectangular ductwork

Rectangular ducts normally require additional support for the SuperLag Prime in the form of contact adhesive and/or proprietary insulation fixings, particularly on the underside where the SuperLag Prime will tend to hang away from the duct surface.

It is recommended that large intricate ducts be further supported and reinforced with 25mm wire mesh (i.e. chicken wire) and wire ties.

Banding rectangular ductwork is not recommended as insufficient support is given across the sides of the duct and the SuperLag Prime will be compressed at the corners, thus affecting performance.

Installation Guidelines

CMS Danskin recommends the following products to assist installation:

Aerosol Adhesive

SPRAYTACK

CMS Danskin Acoustics SPRAYTACK is a specially formulated non-flammable synthetic rubber adhesive. Available in 500ml aerosol cans, which provides approximately 5m2 coverage. SPRAYTACK is a contact adhesive that requires application to both surfaces before bonding.

STA-PUT

STA-PUT is a simple, strong adhesive spray for bonding materials to concrete, brick, wood, plaster or metal walls and ceilings. Available in 500ml aerosol cans, which provide approximately 3.4m^2 coverage. Offers immediate bond strength.

Brush Applied Adhesive

A8514 is a low n-Hexane formula designed specifically for CMS Danskin Acoustics material, and provides rapid tack development. Available in 5 litre cans, which provides approximately 10m^2 coverage. CMS Danskin Acoustics A8514 can be used either as a one way wet or two way dry contact adhesive the latter is recommended as the best method for fixing CMS Danskin Acoustic materials. Always stir the can well before use.

Pins and Washers

CMS Danskin Acoustics pins and washers are available in two designs

1) With a self adhesive base.

2) With a perforated base for use with a separate adhesive.

Both types consist of a pointed spike attached to a square steel base. The CMS Danskin Acoustics Superlag is held in place by a self-locking washer, which is slid over the spike after the material is installed.

Installation Service

In addition to supply of this product CMS Danskin Acoustics can provide a listing of competitively-priced approved installers that service anywhere in the UK. Use of this service ensures that installation is performed to the highest standards by tradesmen fully experienced in the specialist skills of fitting CMS Danskin acoustic materials correctly.

For further details contact our technical team on 01925 577711.

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