

PRODUCT

CMS Danskin Acoustics SUPERLAG® Original Polymeric is a flexible material consisting of a five part laminate incorporating a scrim backed acoustic spacer layer, a heavy polymeric mass barrier and an outer thermal insulating layer with vapour barrier meeting Class '0'. Being of a laminated construction it overcomes the need for a separate isolation layer normally required beneath most forms of acoustic lagging.



FEATURES and 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
- Polymeric sheet mass barrier for high performance

APPLICATIONS

CMS Danskin Acoustics SUPERLAG® Original Polymeric is a highly efficient acoustic insulation lagging for ductwork, pipes, machine coverings, partition infill, suspended ceilings and where considerable reduction in the passage of noise is required.

TECHNICAL INFORMATION

Acoustic spacer	Glass fibre 25mm thick, 16-24 kg/m ³ nominal density. White glass tissue backing
Thermal spacer	Glass fibre 25mm thick, 16-24 kg/m ³ nominal density Class '0' foil facing
Service temperature	-30 to 100°C
Chemical resistance	Oils, water, most solvents
Reaction to Fire (EN 13501-1)	B-s1,d0

PHYSICAL INFORMATION

Dimensions

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

Grades

CMS Danskin Acoustics SUPERLAG® Original Polymeric is available in two grades to suit different performance requirements:

Grade	Polymeric Sheet (kg/m ²)	Thickness (mm)*
Original 5	5	43
Original 10	10	43

*Nominal thickness after glass fibre is quilted

ACOUSTIC PERFORMANCE

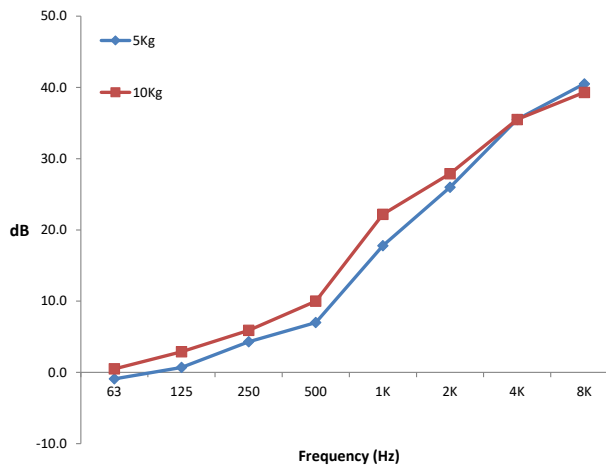
CMS Danskin Acoustics SUPERLAG® Original Polymeric is a high performance material that has been acoustically tested at certified independent test laboratories.

Tested and Rated according to:

BS EN ISO 717-1
BS EN ISO 10140-2

Duct Breakout Insertion Loss

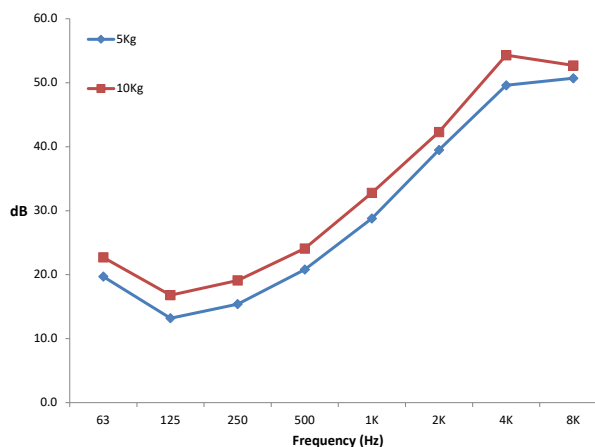
Material	Frequency (Hz)							
	63	125	250	500	1K	2K	4K	8K
5kg	-0.9	0.7	4.3	7.0	17.8	26.0	35.5	40.5
10kg	0.5	2.9	5.9	10.0	22.2	27.9	35.5	39.3



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 and below is based on flat panel tests used for SUPERLAG® Original products. Similar tests carried out on ducting will generally produce similar or slightly lower levels of performance.

Polymeric Mass Barrier Airborne Sound Transmission Loss

Material	Frequency (Hz)								R _w (C;Ctr)
	63	125	250	500	1K	2K	4K	8K	
5kg	19.7	13.2	15.4	20.8	28.8	39.5	49.6	50.7	27 (-1;-4)
10kg	22.7	16.8	19.1	24.1	32.8	42.3	54.3	52.7	30 (-1;-4)



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® Original 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® Original, with the noise reduction of the original untreated ductwork being removed from this performance data.

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

INSTALLATION GUIDELINES

The method required in the fitting of SUPERLAG® 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® 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® 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® in the form of contact adhesive and/or proprietary insulation fixings, particularly on the underside where the SUPERLAG® 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® will be compressed at the corners, thus affecting performance.

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