TECHNICAL DATA SHEET

SUPERLAG QUIETSLAB

PRODUCT DESCRIPTION

CMS Danskin Acoustics SuperLag Quietslab is manufactured from long stranded mineral fibres that are thermo-set with resin into slabs. The inner core of acoustic grade lead or polymeric barrier provides a high degree of resistance to the passage of sound.

BENEFITS

- Excellent thermal and acoustic insulation.
- Fire and temperature resistant.
- Chemically inert.
- Cost effective and easy to install.
- Vermin and rot proof.
- CFC and HFC free.
- Combined thermal and acoustic performance

APPLICATIONS

CMS Danskin Acoustics SuperLag Quietslab is ideal for a wide range of building and industrial applications. A highly versatile material with an extensive listing of applications such as acoustic ceilings, partition panels, walls, floors, roofs, ductwork and industrial enclosures. Also, thermal insulation for boilers, heat exchangers, plant, tanks and pipes. CMS Danskin Acoustics SuperLag Quietslab can be flat or curved to suit requirements.

It is a particularly useful material where a combination of high acoustic and thermal insulation is required, for example, for hot air blower fans and other industrial and process plant equipment types.

FACING AND COVERINGS

CMS Danskin Acoustics SuperLag Quietslab Laminate slabs are available in a wide range of coverings and facings; including:

- Class '0' foil facing
- Glass tissue scrim 60 gm/m^2 (black and white)
- Glass cloth 200 gm/m^2 (black and white)
- Melinex polyester film
- Ceramic paper

ACOUSTIC PERFORMANCE

CMS Danskin Acoustics SuperLag Quietslab are laminated with mass barrier materials for acoustic insulation applications.

Material options:

Polymeric mass barrier	- 5, 7.5 and 10kg/m^2
Lead sheeting	- 5, 10 and 15kg/m^2

PHYSICAL INFORMATION

Standard slab sizes are:	1200 x 600mm.
Standard slab thickness are	50, 60, 75 and 100mm.
Standard slab densities are:	33, 45, 60, 80, 100, 128, 140, 160 and 200kg/m^3.
Notes:	Minimum density for 50mm thick is 45kg/m^3.
	Maximum thickness for 160kg/m^3 is 100mm.
	Maximum thickness for 200kg/m^3 is 100mm.
	Non standard slab sizes and thickness are available upon request.

TECHNICAL INFORMATION

BS 476-4	Non combustible (plain)
BS 476-6 & BS 476-7	Class '0' (faced)

Resistance to compression (BS EN 826)

	Density kg/m^3					
	33	60	80	100	140	200
Stress to give 10% compressionk (N/m^2)	2.0	6.7	12.9	16.4	28.2	68.2
Stress to reach elastic limit (kN/m^2)	2.3	6.1	9.2	11.3	26.1	49.9
Displacement at 5kN/m^2 stress (%)	38.6	7.8	3.4	2.7	1.7	0.7

Minimum Bending Radius (m)

	Slab thickness (mm)					
	30	40	50	60	75	100
Density 33 kg/m^3	0.35	0.40	0.50	0.70	0.90	1.50
Density 60 kg/m^3	0.42	0.50	0.70	1.00	1.35	1.90
Density 100 kg/m^3	0.55	0.70	1.00	1.50	2.25	2.50
Density 140 kg/m^3	1.50	1.90	2.60	3.00	3.30	3.50

Thermal Conductivity (W/m°K)

Mean Temp. °C	Density kg/m^3					
	30	60	80	100	140	200
10*	0.035	0.033	0.033	0.033	0.033	0.034
50	0.043	0.039	0.038	0.037	0.037	0.034
100	0.055	0.047	0.045	0.044	0.044	0.043
150	0.070	0.058	0.055	0.054	0.051	0.050
200		0.070	0.066	0.064	0.060	0.059
250			0.079	0.075	0.070	0.068
300				0.088	0.081	0.079
350				0.104	0.093	0.089
400				0.122	0.106	0.100

* measured with a cold face temperature of 0°C

Maximum Service Temperatures

CMS Danskin Acoustics SuperLag Quietslab can be used up to a maximum temperature of 850°C, but this can vary depending on the compostion of the product. The resin used to bond the slabs is resistant to temperatures up to 230°C above this some resin will be lost to the hot surface causing discolouration.

	Service Temp. °C	Slab
Density 33 kg/m^3	175	Flexible
Density 60kg/m^3	425	Semi rigid
Density 100 kg/m^3	52	Rigid
Density 100 kg/m^3	675	Rigid

TYPICAL INSTALLATIONS

CMS Danskin Acoustics SuperLag Quietslab is a particularly versatile product that has a wide range of applications, typical applications include:

33 kg/m^3 density slab is ideal for acoustic enclosures to reduce noise breakout over conventional mineral fibre performance.

45 kg/m^3 density slab is ideal for acoustic enclosures and duct lining to reduce noise breakout over conventional mineral fibre performance.

60 kg/m^3 density slab is ideal for acoustic enclosures, duct lining and lagging, partitions and floors, blower fans and other shaped industrial equipment.

80 kg/m^3 density slab is ideal for acoustic enclosures, duct lining and lagging, partitions and floors, blower fans and other shaped industrial equipment.

100 kg/m^3 density slab is ideal for duct lining, partitions, floors, industrial equipment and can be used on flat or slightly curved surfaces.

140 kg/m^3 density slab is ideal for sound baffles, duct lining, partitions floors and industrial equipement and is for use on flat surfaces.

200 kg/m^3 density slab is ideal for sound baffles, duct lining, partitions, floors and industrial equipment and is suitable for flat surfaces.

CMS Danskin Acoustics SuperLag Quietslab provides excellent sound reduction characteristics by both impeding the transmission of sound and by absorption of the sound at the surface. Both sound absorption and sound insulation performance is detailed in the adjacent table.

Slab Density (kg/m^3)	Thickness (mm)	Frequency (Hz)					
		125	250	500	1000	2000	4000
33	40	0.10	14	17	22	28	36
33	50	0.10	15	18	24	33	42
33	60	0.22	18	21	25	34	41
33	75	0.24	19	21	28	38	48
33	100	0.39					
45	25	0.05					
45	40	0.14					
45	50	0.25					
45	75	0.50					
45	100	0.80					
60	25	0.10					
60	40	0.13					
60	50	0.25					
60	75	0.55					
80	25	0.06					
80	40	0.11					
80	50	0.16					
80	60	0.25					
80	75	0.39					
80	100	0.89					
100	25	0.05					
100	40	0.12					
100	50	0.35					
100	75	0.44					
128	50	0.40					
140	50	0.40					
200	50	0.40					

CMS DANSKIN ACOUSTICS

Scotland Office: Tel: **01698 356000** Fax: **01698 372222**
1 Netherton Road, Wishaw, ML2 0EQ

Central/Southern Office: Tel: **01925 577711** Fax: **01925 577733**
Unit 2 Lyncastle Road, Appleton, Warrington, WA4 4SN

Email: **info@cmsdanskin.co.uk** Website: **www.cmsdanskin.co.uk**

CMSDANSKIN ACOUSTICS

Issue 3 12/2017 MH