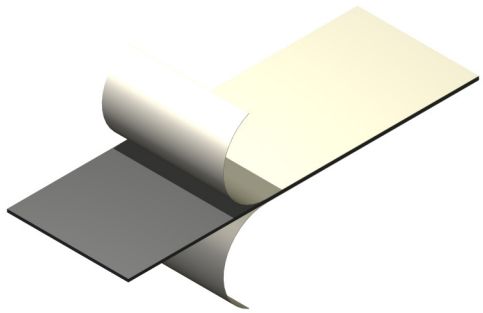
Vibratec®
akustikprodukter

# CLD14 / CLD21

Constrained Layer Damping material



## DAMPING SHEET

### Description

CLD 14 concists of a bitumen mat with self adhesive and paper release on both sides. Comes in 2 thicknesses; 1,4 mm and 2,1 mm. CLD sheets are primarly used for attenuation of radiation of structureborne noise in mechanical structures. Can be used in various applications with plywood, steel or aluminium base plates. Usually recommended for stiff structural applications, where unconstrained damping is unsufficient. Energy is dissipated as a result of shear deformation in the damping layer.

Material should have room temperature when cutting and during installation.

Light weight applications: Ventilation ducts, cabinets, noise enclusures, cabins.

Heavy duty applications: Bulkhead isolation, heavy constructions, thick steel panels. Windturbine generators, Marine & Offshore

### Product specification

Thickness:
1.4: 1.4 ± 0.2 mm
2.1: 2.1 ± 0.3 mm

Sheet dimension:
1020 mm x1020 mm (standard)

Custom dimensions and cut on request

Surface weight:
1.4: 1.3 kg/m$^2$ (+0.25 / -0.13 kg/m$^2$)
2.1: 2.0 kg/m$^2$ (± 0.2 kg/m$^2$)

Adhesion:
Initial adhesive force: Min. 6 N/50 mm according to TM 206
Ultimate strenght: Min. 70 N/ 50 mm according to TM 214

Fire resistance:
< 75 mm/ min according to FMVSS 302

Temperature range:
-30 ° C- + 90 ° C

### Storage

Max. 6 months in tempererature 0 ° C - + 30 ° C

### Tolerences

Raw format - 0
Cutting ± 5 mm
Punch ± 2 mm

Examples: Thick baseplate of 25 mm steel in a heavy duty generator application. Lossfactor are measured in the frequency range below 100 Hz

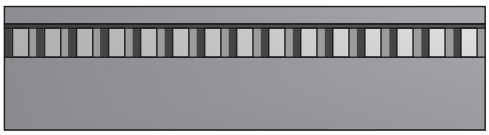
Base - steel sheet in 25 mm

Measured lossfactor η
0,5-1,0 %

Base + 1,4 mm CLD + 6 mm steel sheet

Measured lossfactor η
5-10 %

Base + 10 mm alu honeycomb spacer + 1,4 mm CLD + 6 mm steel sheet



Measured lossfactor η
5-12 %

Base + 1mm steel sheet + CLD14 + 6 mm steel sheet

Measured lossfactor η
8-10 %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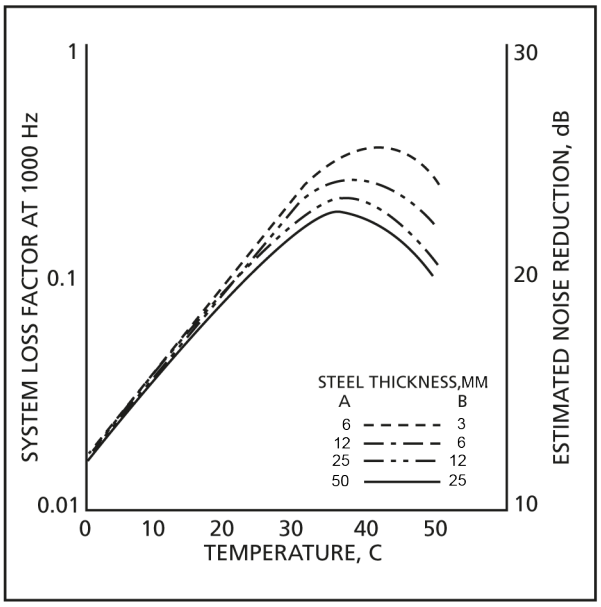
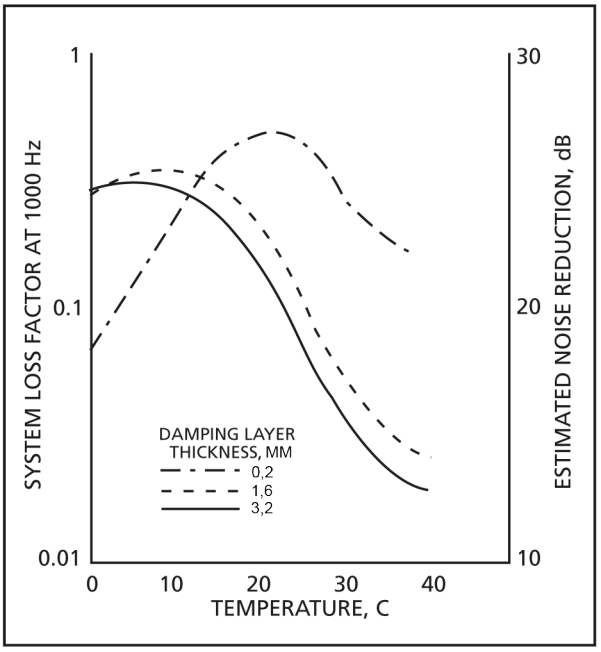
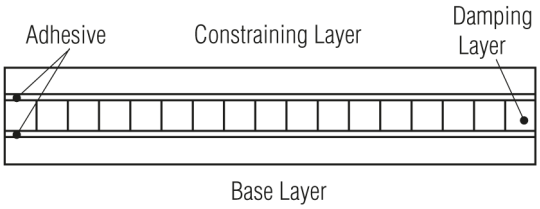
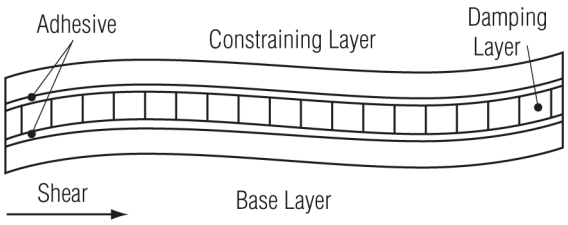
# General behavior of Constrained layer damping





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