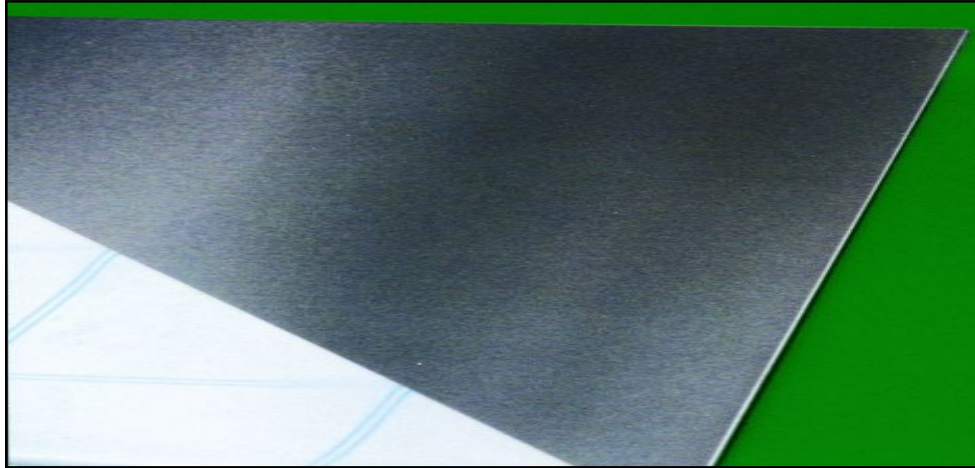


CoustiPlate

Description

CoustiPlate is manufactured from two layers of corrosion resistant, zinc coated, mild steel or aluminium with an energy absorbing visco-elastic core.



The resulting constrained layer damping sheet is designed to reduce sound transmission loss by eliminating resonance.

CoustiPlate is available in flat sheets or can be die-cut to size and shape. The material can be sheared, punched, drilled, screwed or rivetted in the same way as conventional sheet metals.

Materials

Mild Steel, Aluminium or Stainless Steel. Other asymmetric laminates are available, subject to minimum order quantities.

Application

CoustiPlate is used extensively for manufacturing chutes, funnels, heating and ventilating ducts, feeders, conveyors, hoppers, storage bins, machine tool covers, guards, exhaust ducts, waste extractors, timing chain and rocker box covers and bulkheads.

Operating Temperature

CoustiPlate can be used at continuous operating temperatures up to 120°C. In selected applications, where the visco-elastic core is not under direct stress or load, it may be used at temperatures up to 200°C. Further details available on request.

Acoustic Performance

When CoustiPlate is excited into resonance by any form of impact, its vibration response is critically damped. The tendency for a sheet metal material to resonate or 'ring' is characterised by its 'Q' factor. The table below compares the acoustic performance of untreated sheet steel with CoustiPlate of the same overall thickness.

Samples of Equivalent Thickness	'Q' factor
Untreated Sheet Steel	150
CoustiPlate	5

Data Sheet
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Dimensions and Gauge

Product	Gauge	Ordering Reference
Zinc Coated Mild Steel	20/20	ZS
Aluminium	22/22	AL
Stainless Steel	24/24	SS

Note: Asymmetric Laminates and other gauges are available subject to minimum order quantities. Further details available on request.

Fabrication and Welding

Where possible, equipment manufactured with CoustiPlate should be designed using flat sheets. The laminate can be sheared, punched, pierced, drilled, screwed and rivetted to form the overall shape. CoustiPlate can be folded using progressive or hand-folding techniques however, the maximum bend radii should not exceed three times the overall thickness otherwise bowing may occur.

CoustiPlate can be spot and resistance welded using an electrically conductive bridge between the inner and outer sheets. Welding machinery should be set for minimum air pressure, minimum current and maximum time. Other forms of welding may be used, however, CoustiPlate may distort if too much heat is applied.

Welding should be carried out in a well ventilated area with extract hoods to disperse fumes.

For Further Information

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