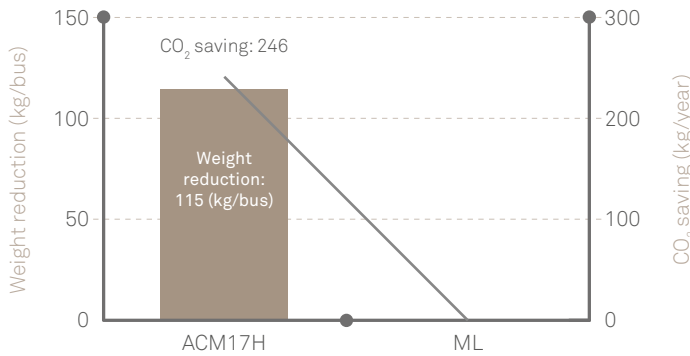


## CONSTRAINED - LAYER DAMPING

During vibration distortion the system flexes creating shear forces on the constrained layer.

It is these shear forces that cause the energy to dissipate and turn into heat.



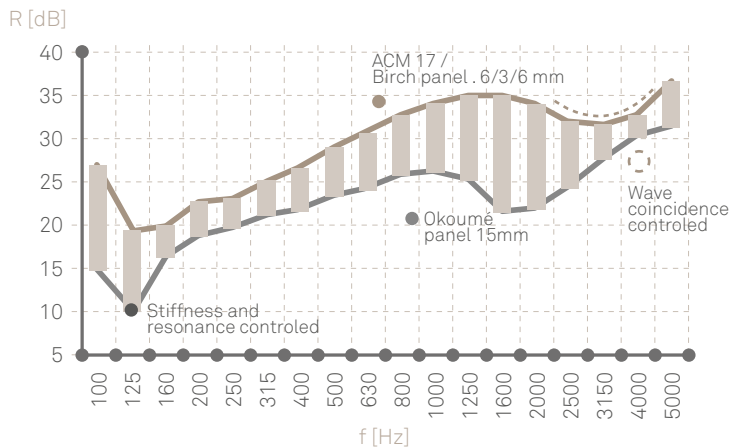
a) comparing against a HML core (2500 kg/m<sup>3</sup>), in a configuration 6/3/6 an 500kg/m<sup>3</sup> plywood

## PANEL SURFACE WEIGHT

Lightweight materials enable vehicles to reduce weight without reduction in size, load-carrying capacity and safety. It also allows the vehicle to achieve higher speeds.

When composite panels are used in the manufacture of such vehicles, the reduction of the panel surface weight is the most cost-effective mean to reduce fuel consumption and release of greenhouse gases to the atmosphere.

In the transportation sector and considering that a bus utilize 25m<sup>2</sup> of composite panel, **ACM17** core material can reduce up to 115kg with an equivalent CO<sub>2</sub> saving of more than 240kg/ year (a).



## AIRBORNE SOUND ISOLATION VIBRATION DAMPING

**ACM17** is a multilayer panel material with a very good noise control performance at the mass controlled region and at the medium and high frequency region, while keeping a lower panel weight.