

Mass Loaded Vinyl v Lead

Oil and Gas Pipelines need thermal insulation and Jacketing to protect them from harsh environmental conditions, prevent heat losses, minimise health and safety risks and comply with government legislation. In certain areas, these jackets require additional layers of noise and vibration insulation. The installation process is expensive and labour intensive. Conventional systems use products like Lead and Bitumen for noise reduction.

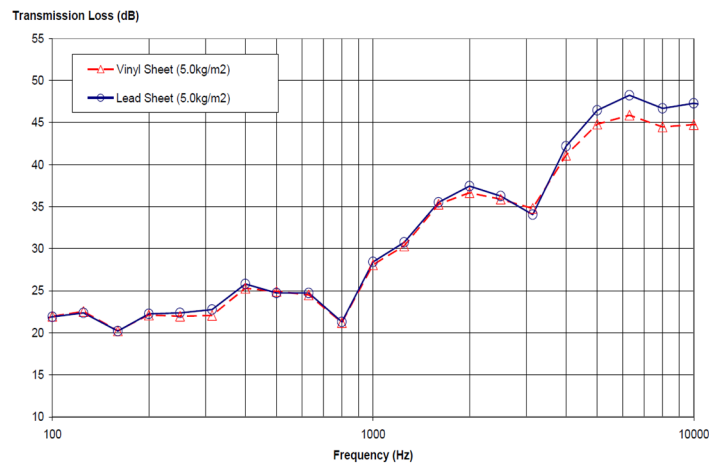
Even though the conventional products have numerous adverse effects on personnel health, safety and environment, these products continue to be used because of their good noise insulation properties. These products are specified as an acoustic barrier for most LNG and Crude oil applications.

To mitigate the health and safety and environmental problems, BS Stainless Limited and Sheffield Hallam University have developed an enhanced acoustic insulation jacket 'SoundMet'. SoundMet offers enhanced acoustic insulation on the pipelines without using any of the conventional products, or products which are a risk to health, safety and environment (HSE).

SoundMet uses a revolutionary Vinyl barrier bonded to a metal sheet to form a superior acoustic jacketing. SoundMet does not exhibit any adverse effects on HSE and is more efficient in dampening unwanted noise in the pipelines.

The tests results shown below are the evidence of vinyl barrier high performance. The testing was conducted at Bradford University by Prof Horoshenkov.

The first results are with Lead 5 kg/m² vs Vinyl sheet 5 kg/m², it can be seen that vinyl properties match Lead very closely, however, in the second results if we go upto 7.5 kg/m² vinyl, it shows much improvement compared to lead without the adverse effects and risks involved in using Lead.



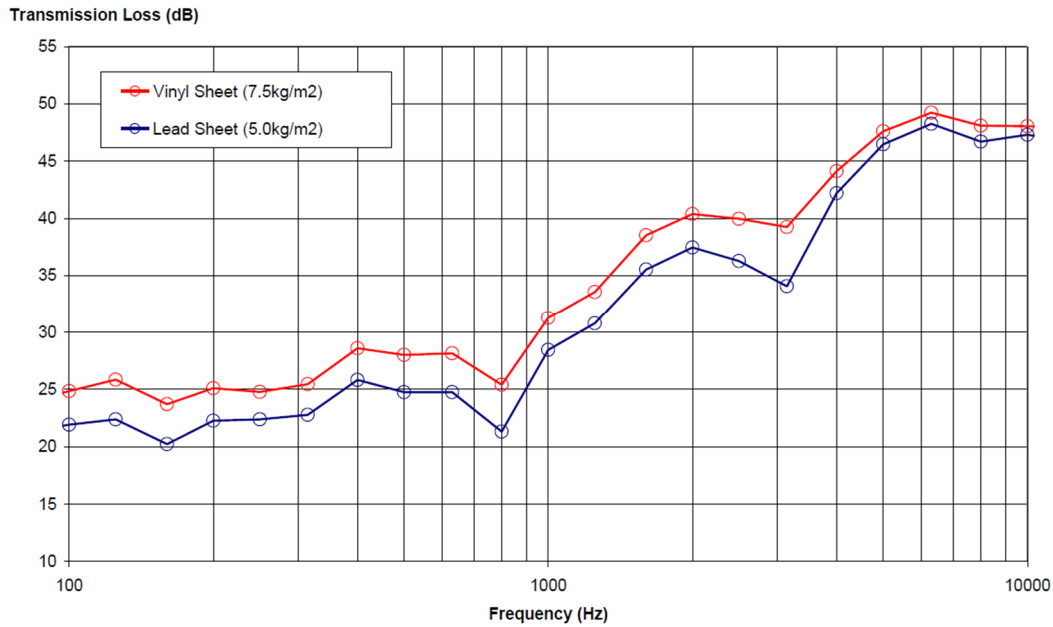
5 Kg/m² Mass Loaded Vinyl VS 5 Kg/m² Lead



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7.5 Kg/m² Mass Loaded Vinyl VS 5 Kg/m² Lead

SoundMet uses the vinyl bonded to the metal, preliminary testing have suggested that the bonding process significantly improves the noise damping properties. Hence, we are confident that the SoundMet system with 5kg/m² vinyl would easily surpass the performance of lead based acoustic jacketing system.



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