



Technical Specifications QuietCore Acoustic Panels

SOUND SHIELD

ENGINE

SERVICE CHANNEL

QuietCore Panels

The cored construction also raises the acoustic coincidence frequency of the panel, resulting in further enhanced transmission loss. This means that the use of an 18mm QuietCore M bulkhead instead of standard plywood of the same thickness can reduce noise transmission by up to 10dBA. (see graph) This is an audible reduction of 50%.

Soundown QuietCore is used extensively throughout vessels to reduce noise from a number of sources. Critical areas include the accommodations side of bulkheads between mechanical spaces and accommodations. Such partitions utilize the ability of QuietCore to stop airborne noise from engines, generators and other equipment. In addition to air borne noise from these sources, vibration that gets into structure is radiated off of finish panels and into living areas. As a damped composite, QuietCore greatly reduces this structure borne as well as air borne noises.

QuietCore panels are also an important part of increasing privacy between cabins. In areas where guest cabins adjoin crew quarter's privacy treatment are especially important for all parties. For such applications our recommended installation of 18mm QuietCore M panels on 2" QuietStrips on a steel bulkhead will provide STC ratings in the range of 50dBA, which will exclude any noise from voices or reasonable AV usage. Similar construction can be used between guest cabins or main deck galleys and adjoining accommodations.

QuietCore Panels can be used in a wide variety of installations. These installations include single sheet applications as partitions, as sheathing on stud walls and subfloors throughout accommodations. For the most effective installations QuietCore should be installed on Sylomer or Soundown IsoStrips to create a floating wall or floor.

Soundown is happy to provide recommendations about which panels will best suit your application. Short runs of custom panels are also available.

Soundown Quietcore Panels are composite panels consisting of high quality marine plywood skins sandwiching an acoustic core. The plywood skins constrain the acoustic core resulting in a panel that is highly damped for its weight and thickness, especially, when compared to standard plywood. Standard QuietCore panels have skins ranging from 4mm to 12mm and cores of 4mm to 6mm. Normal applications use equal thickness skins around the acoustic core for the best panel bending stability. The make up of the correct composite for your application will be based on upon the noise source, weight allowance and type of installation.

The composite construction of the Quietcore panels creates a panel that works in standard wood constructions and has the benefit a constrained damping layer which enhances acoustic performance. The constrained damping layer acts to convert acoustic energy into small amounts of heat and dissipates it into the air instead of allowing noise to be transmitted into the accommodation spaces.



8" ID (203,2mm) ENGINE EXHAUST PIPE

18mm QUIET (0,723m)

		SOUNDOWN CORPORATION ACOUSTIC INSULATION DETAIL			
SOUNDOWN CORP. 17000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000	SIZE A	PART NO. 1000	INFO ID 1000	DIM. NO. 1000	TOTAL 1000
DRAWN BY 1000	SCALE 1:1	DATE 1000	SHEET 1000	TOTAL 1000	1000
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