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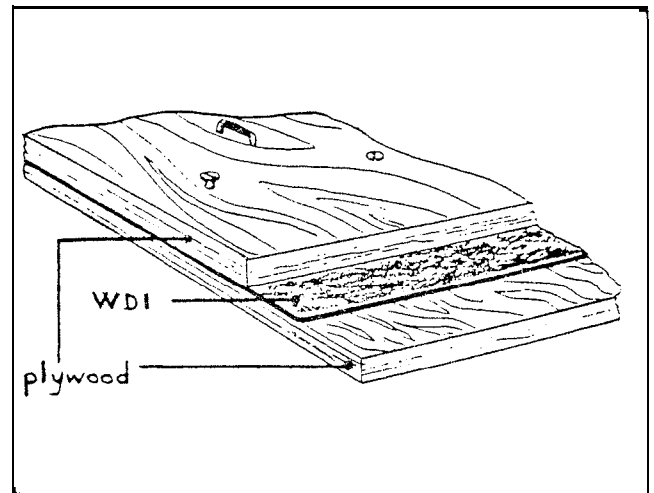
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## VIBRATION DAMPING INTERLAYER for WOOD (WDI) SANDWICHED BETWEEN PLYWOOD SHEETS

SOUNDOWN Vibration Damping Interlayer for Wood (WDI) is used to create acoustically dead wood. By deadening a piece of wood, an improvement of its sound and vibration isolating qualities is achieved. Contrary to a common misconception, untreated wood is not a highly effective sound isolator - witness the violin as a fine sample of vibrating wood radiating noise (music if well played).

WDI is commonly used for flooring in buses and boats. Construction is done by laying the first floor, then, near the end of cabin finishing, the interlayer is installed and covered with the finish layer of plywood. For use on bulkheads the laminations are usually done before installation. The WDI bonds with its own pressure sensitive adhesive backing, and requires additional screws or staple fasteners applied across the plywood layers at a spacing of 14" to 20".

For the best bonding of plywood faces to WDI we recommend pressure bonding using 50 psi pressure for 5 minutes in a plywood type press, or be using a roller press.



Test results show that 1/2"-7/8" wood panels with WDI have about 5 decibels better noise reduction than a standard plywood of the same thickness for the frequency range 250 Hz to 2,000 Hz. Vibration damping loss factor, **h** is equal to 0.15 or more for these frequencies over the temperature range 32°F to 85°F. This is about 5 times better damping than for normal plywood.

WDI construction design should be done assuming that the interlayer does not possess the full shear stiffness of the attached plywood sheets. In order to achieve a composite panel of equal stiffness to a normal piece of plywood, the total composite would have to be up to 1.6 times the thickness of the normal single plywood sheet construction.

### Soundown WDI

Sheet size:	31" X 48.5"
Thickness:	0.07"
Weight:	0.4 Lb/Ft <sup>2</sup>
Color:	black