

MidTones
WOOD DIFFUSERS

MIDTONES WOOD DIFFUSERS COMBINE THE BEAUTY OF NATURAL WOOD WITH THE SCIENCE OF QUADRATIC THEORY TO CREATE BROADBAND SOUND DIFFUSING WALL AND CEILING FINISHES, PRODUCING A SUPERIOR ACOUSTIC ENVIRONMENT.

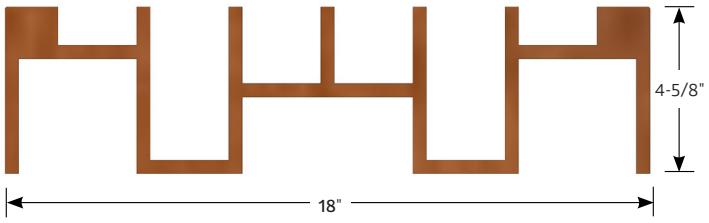
This versatile acoustic diffuser provides a wide frequency range of uniform acoustical diffusion. This is highly desirable in many critical listening environments. Middle to high frequency sound reinforcement through diffuse reflections off of the MidTones surface improves sound clarity and uniformity throughout the listening space.

MidTones Wood Diffusers are manufactured as an 18" wide hardwood assembly which is designed as a series of sound scattering wells of varying depths. This sequence of seven elevations and their relationship to one another is based on Quadratic Residue Diffuser theory for scattering sound wave energy, based on the work of German acoustician M. R. Schroeder. The assemblies can be installed side by side so that the sequence of wells repeats itself across a wide area. Sound reflections will be scattering horizontally when the MidTones ribs are installed vertically. Laying out the diffuser panels 90 degrees to one another in a quilt work pattern will scatter sound in two dimensions, both vertically and horizontally.

MidTones / Wood Diffusers

DESCRIPTION

- A hardwood quadratic residue diffuser
- 18" wide, 4-5/8" deep, in varying lengths (a standard 96" maximum length)
- Extended Length Option: Custom lengths up to 120" available upon request
- Provides a diffuse scattering of mid to high frequency sound for uniform distribution across the listening space
- Designed in a sequence of seven well depths based on quadratic residue diffuser theory and the work of German acoustician M.R. Schroeder



APPLICATIONS

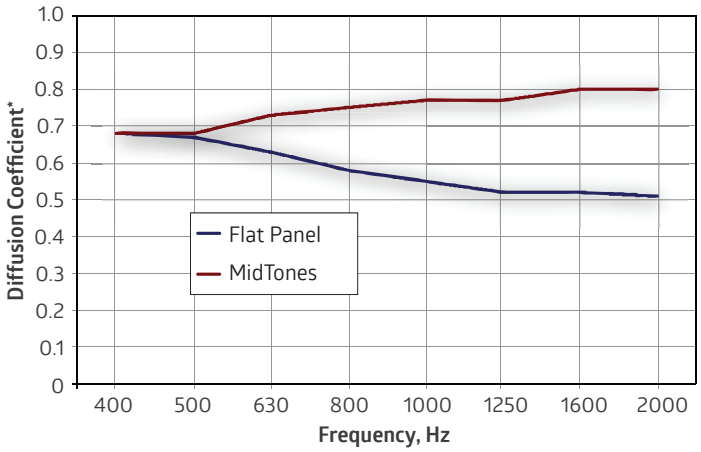
- Auditoriums
- Lecture halls
- Music performance and rehearsal spaces
- Other critical listening environments such as recording studios and home theaters

COMPOSITION

Select from a variety of hardwoods, type and finish selected by the designer. Matching trim pieces for the top and bottom are available as the design requires.

ACOUSTICAL PERFORMANCE

MidTones Diffusers are designed using the principles of quadratic residue diffuser theory for diffusion of mid and higher frequencies. Based on small scale testing using the guidelines of the Audio Engineering Society document AES-4id2001, MidTones will diffuse sound in the 500 Hz to 5000 Hz frequency range. Used in combination with HighTones Diffusers, MidTones Diffusers allow the designer to create a uniformly balanced sound environment over much of the audible spectrum.



*MidTones diffusion coefficients based on reduced scale model testing. Actual performance may vary.

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