## Flutterfree



FlutterFree ${ }^{\circledR}$ is a handsome, furniture grade, acoustical hardwood moulding that provides flutter echo control as well as bass absorption. Its application converts small rooms with flat parallel surfaces into functional spaces with good speech intelligibility, sound quality, and a natural, comfortable ambiance. It expands the designers' flutter control finish treatment options beyond fabric upholstered surfaces.

Acoustical Data
The graph illustrates the random incidence ISO 354 A-Mount absorption coefficients, the ISO 17497-1 scattering coefficients and the ISO 17497-2 diffusion coefficients.

Supplemental Absorption Data
The absorption coefficients for slotted and non-slotted FlutterFree ${ }^{\circledR}$ are shown, along with the A Mount data (red) over the full frequency range. The non-slotted FlutterFree ${ }^{\circledR}$ planks are backed with 25 mm Fiberglass in a Helmholtz mounting 1.5 mm apart (C Mount), on the surface and with a 90 mm cavity (D Mount). The slotted FlutterFree ${ }^{\circledR}$ planks are backed with 25 mm Fiberglass (FG) and mounted with no space between the planks, on the surface and with a 90 mm cavity.

## Installation

FlutterFree ${ }^{\circledR}$ is moulded on a 5 head wood molder from hardwood that is kiln dried to $6-8 \%$ moisture content. $\mathrm{RPG}^{\oplus}$ takes every precaution to minimize warping by stress relieving the rear surface and treating all exposed surfaces on prefinished orders. FlutterFree ${ }^{\oplus}$ can either be nailed or glued directly to a wall surface or mounted with a rear air cavity for low frequency absorption. In this Helmholtz mounting, a semi rigid fiberglass panel is mounted 25 mm behind the FlutterFree ${ }^{\oplus}$. To standardize and maintain the proper spacing, lamello biscuits are included. When used as wall panels, a hardwood frame (not supplied) is suggested.

| Frequency | Diffusion | Scattering <br> (ISO) | Absorption <br> (A Mount) |
| :---: | :---: | :---: | :---: |
| 1000 | -0.03 | 0.06 | 0.14 |
| 1250 | -0.03 | 0.04 | 0.14 |
| 1600 | -0.02 | 0.16 | 0.19 |
| 2000 | 0.07 | 0.15 | 0.23 |
| 2500 | 0.06 | 0.39 | 0.25 |
| 3150 | 0.1 | 0.42 | 0.3 |
| 4000 | 0.27 | 0.45 | 0.31 |
| 5000 | 0.34 | 0.68 | 0.31 |
| 6300 | 0.48 | 0.91 |  |
| 8000 | 0.58 | 0.95 |  |
| 10000 | 0.54 | 0.83 |  |
| 12500 | 0.37 | 0.99 |  |
| 16000 | 0.36 | 0.88 |  |
| 20000 | 0.52 | 0.89 |  |



