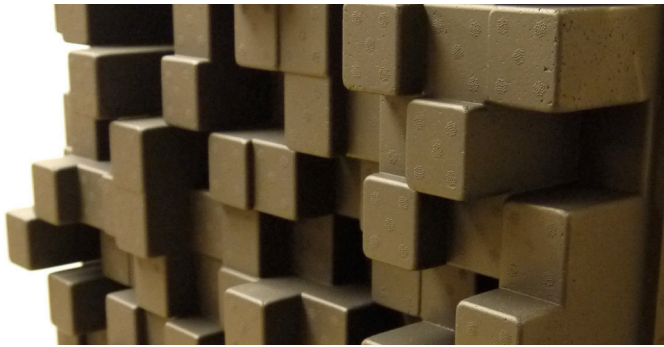


Skyline



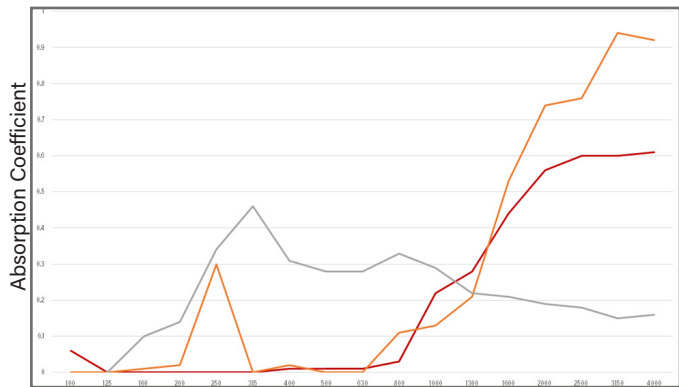
Interfering reflections can be controlled by absorption or diffusion. In Home Theatres, it is often desirable to control interfering reflections and provide an ambient sound field using diffusion instead of absorption. When the rooms' surfaces are relatively close to the listener, a very efficient diffusing surface is needed. To solve this problem, RPG® patented the Skyline. It is the industry's first and most efficient omnidirectional primitive root number theory two-dimensional diffuser. The Skyline® scatters incident sound uniformly so that the acoustic glare in all directions is minimized.

Acoustic Data

The uniformity of diffusion is characterized by the standard deviation of the 1/3 octave polar response for a given angle of incidence. For each of the 37 angles of incidence, 37 backscattering impulse response measurements are made at 5° increments between 0° and 180°. The Diffusion Coefficient is the mean standard deviation for all angles of incidence, normalized to the standard deviation of a delta function (1 equals ideal diffusion). The data illustrate the exceptional uniformity of diffusion above the diffraction limit (565 Hz = 1130 ft/sec/2'), which is related to the 610mm dimension of the panel. The Diffusion Coefficient of a flat reflective panel is shown for comparison. The solid expanded polystyrene core of the Skyline® provides useful low frequency absorption.

Installation

The Skyline® is very easy to install on walls or ceilings using either construction adhesive or the supplied hook and loop fasteners. Apply both sides of the hook and loop fastener to the rear of the Skyline® in each corner on a flat area. Remove the protective paper from the exposed side and apply to the wall. For permanent mounting you may wish to also apply construction adhesive along with the hook and loop. Skylines® can also be inserted into a T-bar ceiling grid. Be sure to apply all Skylines® in the same orientation.



Frequency	Diffusion	Scattering (ISO)	Absorption
100	0.06	0	
125	0	0	0
160	0	0.01	0.1
200	0	0.02	0.14
250	0	0.3	0.34
315	0	0	0.46
400	0.01	0.02	0.31
500	0.01	0	0.28
630	0.01	0	0.28
800	0.03	0.11	0.33
1000	0.22	0.13	0.29
1300	0.28	0.21	0.22
1600	0.44	0.53	0.21
2000	0.56	0.74	0.19
2500	0.6	0.76	0.18
3150	0.6	0.94	0.15
4000	0.61	0.92	0.16

