Subject: Re: Diffusion or absorption?
Posted by Wayne Parham on Wed, 06 Jun 2018 19:44:35 GMT
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You can measure the length of time it takes for sound to decay -30dB (called T30) or even -60dB (called T60). The shorter the delay, the more highly damped the room.

In recording chambers and other critical listening rooms, typical decay time (T60) values are 0.2 to 0.5 seconds between 250 Hz to 4 kHz. If you're in a particularly small room (< 200ft2 w/8ft ceiling) aim for 0.1 to 0.3 seconds. The smaller the room, the shorter the decay times should be.

The most accurate control rooms are highly damped with reverberation times less than about 0.3 seconds.

In hi-fi listening rooms, optimal T60 values depend on your listening preferences.

If you listen mostly to classical music, consider a more live room with decay times of 0.4 to 0.5 seconds. If you only listen to multi-track recordings comprised of close-mic'ed instruments or electronic elements, aim for 0.2 to 0.3 seconds.

If you like to mix it up with your genres, 0.35 seconds could be a good sweet spot for a 500ft2 room. Again, assuming an eight to ten foot ceiling.

In surround sound rooms and home theaters, Dolby recommends shorter decay times of 0.2 to 0.4 seconds.