Subject: Re: interesting damping material
Posted by wunhuanglo on Tue, 15 Aug 2006 10:01:31 GMT
View Forum Message <> Reply to Message

This discussion sounds like an apple-and-oranges thing to me.KEF's point was effectivey to substitute activated charcoal for fiberglass. I'm not sure I buy into that myself - the hydrodynamics of the situation have to be entirely different since the open area of the charcoal has characteric dimensions on the molecular scale as opposed to the open area of the fiberglass which is of a far different character.But once the charcoal (or pearlite) is in a bag it's now supporting a continuous reflective surface. That surface may be malleable, it may break up wavefronts, it may dissipate energy due to its lack of rigidity, but the mode of operation, if you will, is entirely different with respect to the air moving in the speaker cabinet.In the case of the loose fill situation it's more of velocity dissipation by hydraulic resistance (losing air pressure down a long hose) where in the baggie case it's analogous to using any other sort of non-rigid medium to absorb energy.I believe one of the earliest uses of the pearlite-in-a-bag concept was in Jim Lansing's 1937 Iconic loudspeaker where he used mineral wool held to the back wall of the speaker cabinet with a sheet of cheese cloth-like material. This way air was free to move through the medium while dissipating energy through frictional losses.