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Subject: Re: Two questions on how to construct a sound box  
Posted by [Wayne Parham](#) on Wed, 06 Oct 2010 23:33:46 GMT  
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Well, the materials for building the box matter some, sure, but I think even more important is the bracing. You just want a dead box, one that doesn't vibrate and make sympathetic secondary vibrations on its own. I usually use MDF for smaller cabinets that will be used indoors, unlikely to be exposed to moisture. I use baltic birch for larger cabinets, ones that will be used in more humid environments or outdoors, and spekaers that will be moved a lot.

As for sizing the speaker to the room, I think that's as much a matter of aesthetics as it is anything else. Then again, very small speakers tend to have sound sources tightly spaced, so you don't have to be as far from them for them to integrate. And then again again, if the speaker is designed to provide a nice forward lobe, it probably doesn't need much room to integrate. The two things tend to go together, because its all a matter of point sources verses arrays. Different systems (points sources, arrays, monopoles, dipoles, etc.) radiate differently, and interact with boundary (wall reflections) differently too.