Subject: Speaker housing & sound quality?
Posted by Tadtone on Fri, 30 Dec 2016 14:29:17 GMT
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A christmas debate down the pub was never resolved, so I'm bringing it here so the intelligent people here can chime in. What difference does the shell of the speaker make to the sound? Metal, wood, plastic, does it have an effect on how the speaker sounds?

We have one guy insisting that wood is the only answer, and another objecting to metal because it rattles, and me saying I don't care if it sounds good. Is there any actual difference?

Subject: Re: Speaker housing & sound quality?
Posted by Wayne Parham on Fri, 30 Dec 2016 16:16:11 GMT
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The cabinet construction makes a difference, and potentially a huge difference. You don't want the panel resonance(s) to be in the speaker's passband, and you want them to be well damped. So materials and bracing are very important.

Subject: Re: Speaker housing & sound quality?
Posted by Tadtone on Sun, 15 Jan 2017 12:48:06 GMT
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So it really does make a difference then. I'll have to look up 'panel resonance' for the details I guess, but are there different materials which are better for tweeters, sub-woofers etc?

Subject: Re: Speaker housing & sound quality?
Posted by Wayne Parham on Mon, 16 Jan 2017 01:48:35 GMT
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I like to make cabinets out of MDF when the speakers won't be moved a lot and where they won't be exposed to water. For speakers that might be moved a lot (like prosound), I prefer to use Baltic Birch. Either way, the cabinet must be sufficiently braced.