
Subject: Re: Cone Stiffness!

Posted by [Adam](#) on Tue, 11 Jun 2002 23:02:12 GMT

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Stiffer cones are generally better... You really want to keep a linear, stiff piston as much as you can. Stiff cones will have bad breakup modes as opposed to less stiff materials. So it is conceivable that softer materials are better for tweeter units, whilst hard materials are best for sub duty. This is just a very broad generalisation. As far as cone weight goes, it is extremely relative to motor strength. Increasing moving mass will decrease f_s , raise Q_{es} (not q_{ms} I don't think) and lower sensitivity. As far as accuracy... The answer is also no. It plays a part, but there is no direct correlation. It all depends on how the motor handles the moving mass. The Ground Zero plutonium has just under 300 grams of moving mass (a lot), but the 1,200 ounce magnet and high power motor still allow the sub to maintain a q_{es} of .157, which is very impressive. Likewise, you could have a sub with like 50 grams of moving mass, but if it has a very weak motor, it will sound sloppy. So you have to consider the driver as a whole; moving mass alone is virtually irrelevant. Having said that, I am also not implying that Q_{es} has anything to do with determining the sound quality of the sub, because it really has very little to do with it, unless it is excessively high, like 1.2 or something. There are great sounding woofers with a Q of .2 and great sounding woofers with a Q of .6 .Adam
