

---

Subject: Re: Stuffing thickness

Posted by [Bill Fitzmaurice](#) on Fri, 13 Aug 2004 16:24:02 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

There are some formulas for the amount of stuffing, according to the material, F3 and other considerations, but they aren't terribly precise. The best way to do it is to run an impedance plot. With no stuffing or insufficient stuffing you'll have one large peak at the  $F_0$  and a number of smaller ones above it, as I noted before. When a sufficient stuffing density is reached only the high spike will remain, with the rest suppressed, along with the resonances that caused them. With polyester pillow stuffing you'll usually find that sufficient stuffing to thoroughly fill the line without compressing it is sufficient. A line with inadequate stuffing has not only ragged response but the roll off below  $F_0$  is at 12dB, the same as a vented box. Properly stuffed a line rolls off below  $F_0$  at 6dB, so you have the bass response at  $F_0$  of a vented box but the slower rolloff and cone control of a sealed box below that.

---