Damping factor & speaker cables

One of the most important specifications for the sound quality

Product: **Beolab 5000** Classic Audio ID: 1902 Product owner: Classic Audio

Amplifier

PRODUCT Specification

check with 'x' **X** 4 ohm speakers

8 ohm speakers

Measured at speaker output

	Load 4 Ω Volt	u/Load Volt		Damping Factor
Left ch.	1,000	1,035	4	**29,6**
Right ch.	1,000	1,037	4	**28,0**
Test level	0,13 [watt]			

Measured **BEFORE** full restoration

				Damping Factor
Left ch.	1,000	1,512	4	**3,0**
Right ch.	1,000	1,221	4	**5,5**
Test level	0,13 [watt]			

Amplifier

Amplifier (output impedance) ohm

0,140

0,148

Cable

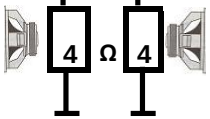
Speaker cable (cable impedance) ohm

0,134

Cable lenght **3** m

Cable dimension **0,75** mm2

Speakers



Min. cable dimension **2,5** mm2

Recommended cable dimension 5,0 mm2

Your System

You *can* hear a 10% change of the damping factor !

Damping factor (System specification)

14,6	**Left ch.**
14,2	**Right ch.**

52%

Classic Audio recommendation

22	Recomended min. Damping factor
25	Recomended Damping factor

Specifications and test data for Beolab 5000
Owner: Classic Audio

Referencer:

quote

http://en.wikipedia.org/wiki/Damping_factor

In audio system terminology the **damping factor** gives the ratio of the rated impedance of the loudspeaker to the source impedance.
Only the resistive part of the loudspeaker impedance is used. The amplifier output impedance is also assumed to be totally resistive.
The source impedance (that seen by loudspeaker) includes the connecting cable impedance.

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When listening to a system with an amplifier of high damping factor, the bass will be extended, but very clean.
The woofers will not overshoot, and any muddiness in the bass will be due to the program material, more than the amplification chain.
This is not to say that an amp of high quality will make the bass of a Cerwin Vega (a speaker known for boomy, muddy bass)
turn into the bass of a reference series speaker, but a marked change will be observed, and heard.

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