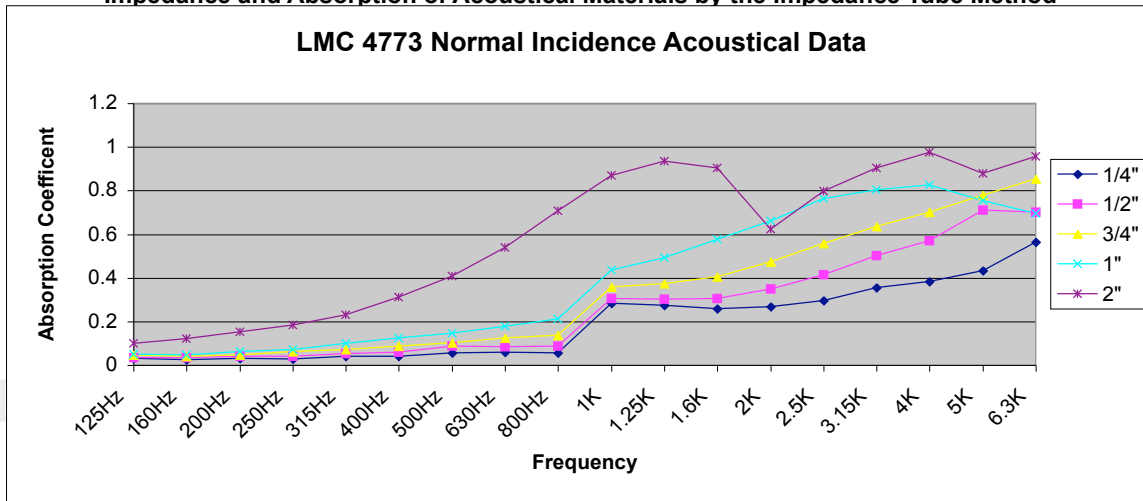


# ACOUSTICAL DATA FOR LMC 4773

The following data was compiled following ASTM Test Method C 384-95  
 "Impedance and Absorption of Acoustical Materials by the Impedance Tube Method"



Frequency	Material Thickness				
	1/4"	1/2"	3/4"	1"	2"
125Hz	0.032	0.033	0.046	0.051	0.099
160Hz	0.026	0.034	0.041	0.048	0.121
200Hz	0.031	0.042	0.047	0.061	0.153
250Hz	0.029	0.039	0.063	0.071	0.183
315Hz	0.041	0.052	0.073	0.099	0.231
400Hz	0.041	0.059	0.088	0.125	0.313
500Hz	0.056	0.088	0.102	0.148	0.408
630Hz	0.058	0.085	0.125	0.179	0.539
800Hz	0.057	0.086	0.136	0.211	0.709
1K	0.283	0.306	0.359	0.435	0.869
1.25K	0.273	0.302	0.373	0.491	0.936
1.6K	0.259	0.306	0.405	0.576	0.903
2K	0.269	0.349	0.474	0.662	0.624
2.5K	0.296	0.415	0.557	0.764	0.799
3.15K	0.354	0.502	0.636	0.804	0.904
4K	0.383	0.571	0.702	0.826	0.975
5K	0.434	0.711	0.778	0.755	0.879
6.3K	0.564	0.702	0.854	0.696	0.957
	<b>Absorption Coefficient</b>				
NRC	29	33.8	40	50	74.3

**Summary of Test Method**

A plane wave traveling in one direction down a tube is reflected back by the test specimen to produce a standing wave that can be explored with a microphone. The normal incidence sound absorption coefficient is determined from the standing wave ratio at the face of the test specimen. To determine the impedance ratio a measurement of the position of the standing wave with reference to the face of the material is needed. The absorption coefficient and impedance ratio are functions of frequency. Measurements are made with pure tones at a number of frequencies chosen, unless there are compelling reasons to do otherwise, from those specified.

**Significance and Use**

The acoustical impedance properties of a sound absorptive material are related to its physical properties, such as airflow resistance, porosity, elasticity, and density. As such, the measurements described in this test method are useful in basic research and product development of sound absorptive materials....

The listed Summary of Test Method and Significance and Use information was taken directly from the ASTM Standard listed. Any further test procedure information required please contact ASTM directly for a copy of the Test Methods.

The testing was conducted by the supplier of the foam to LMC and is believed to be valid. Any further testing requirements will have to be discussed with a LMC representative.

gfc-3Nov98