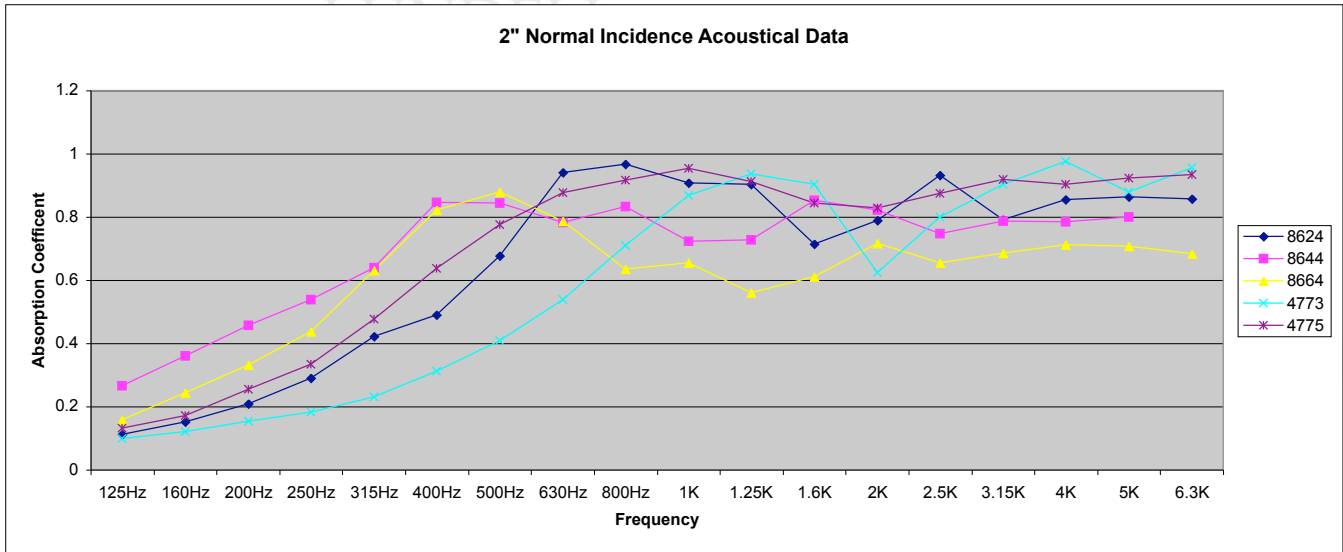




2" ACOUSTICAL DATA

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



Frequency	LMC Material Designation				
	8624	8644	8664	4773	4775
125Hz	0.112	0.199	0.159	0.099	0.131
160Hz	0.152	0.267	0.243	0.121	0.172
200Hz	0.208	0.361	0.331	0.153	0.256
250Hz	0.291	0.458	0.438	0.183	0.334
315Hz	0.421	0.539	0.631	0.231	0.477
400Hz	0.491	0.639	0.823	0.313	0.638
500Hz	0.676	0.846	0.879	0.408	0.775
630Hz	0.941	0.843	0.787	0.539	0.877
800Hz	0.967	0.782	0.636	0.709	0.917
1K	0.907	0.834	0.656	0.869	0.953
1.25K	0.903	0.722	0.561	0.936	0.911
1.6K	0.715	0.727	0.611	0.903	0.844
2K	0.788	0.853	0.716	0.624	0.828
2.5K	0.931	0.821	0.656	0.799	0.875
3.15K	0.792	0.748	0.686	0.904	0.919
4K	0.854	0.786	0.711	0.975	0.904
5K	0.864	0.785	0.707	0.879	0.924
6.3K	0.858	0.801	0.683	0.957	0.933

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....

Absorption Coefficient

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.

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