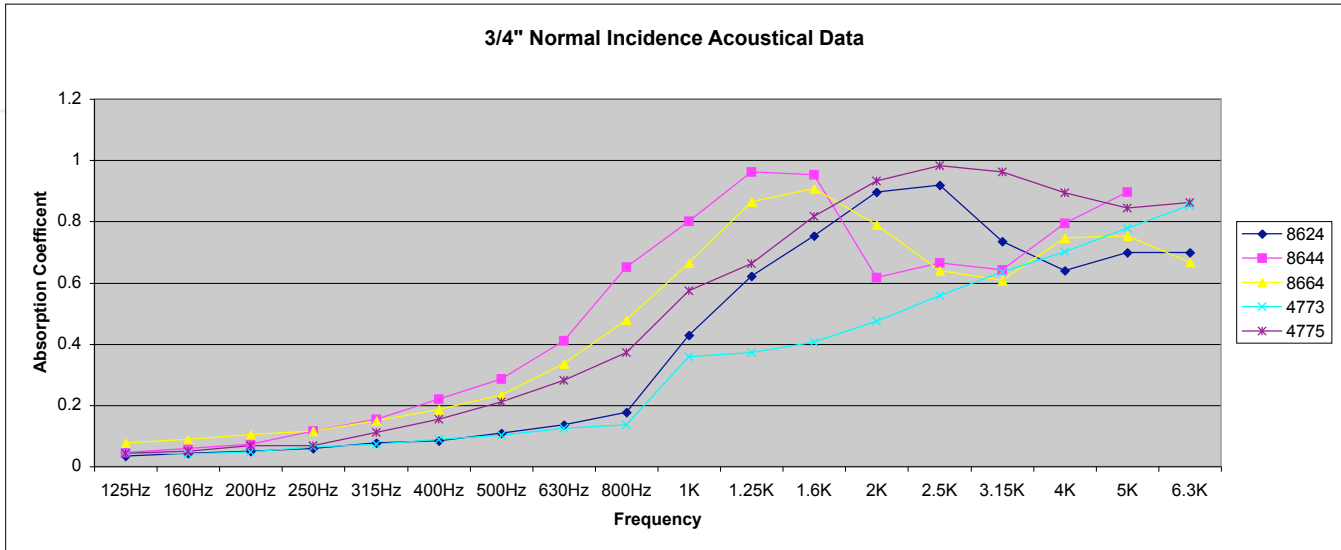


## 3/4" ACOUSTICAL DATA

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					Summary of Test Method
125Hz	8624	8644	8664	4773	4775	<b>A plane wave traveling in one direction down a tube is</b>
160Hz	0.033	0.039	0.077	0.046	0.044	reflected back by the test specimen to produce a
200Hz	0.044	0.045	0.088	0.041	0.051	standing wave that can be explored with a microphone.
250Hz	0.051	0.058	0.104	0.047	0.069	The normal incidence sound absorption coefficient is
315Hz	0.059	0.073	0.116	0.063	0.068	determined from the standing wave ratio at the face
400Hz	0.076	0.116	0.149	0.073	0.112	of the test specimen. To determine the impedance ratio
500Hz	0.083	0.154	0.185	0.088	0.154	a measurement of the position of the standing wave with
630Hz	0.109	0.221	0.233	0.102	0.211	reference to the face of the material is needed.
800Hz	0.135	0.286	0.335	0.125	0.281	The absorption coefficient and impedance ratio are
1K	0.177	0.411	0.478	0.136	0.373	functions of frequency. Measurements are made with pure
1.25K	0.429	0.652	0.664	0.359	0.575	tones at a number of frequencies chosen, unless there are
1.6K	0.622	0.801	0.864	0.373	0.662	compelling reasons to do otherwise, from those specified.
2K	0.754	0.961	0.907	0.405	0.817	
2.5K	0.897	0.952	0.789	0.474	0.932	Significance and Use
3.15K	0.919	0.618	0.639	0.557	0.983	<b>The acoustical impedance properties of a sound absorptive</b>
4K	0.734	0.665	0.608	0.636	0.961	material are related to its physical properties, such as airflow resistance,
5K	0.639	0.641	0.746	0.702	0.893	porosity, elasticity, and density. As such, the measurements described
6.3K	0.698	0.795	0.754	0.778	0.844	in this test method are useful in basic research and product
	0.698	0.897	0.667	0.854	0.861	development of sound absorptive materials....

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-15Jan99

File:75-sound-data.xls  
 Rev: 9/24/09