

INSTITUTE OF ACOUSTICS

TONGJI UNIVERSITY

LABORATORY REPORT

TEST ITEM: Ghost Corner Trap (Acoustic Absorption capability)

TEST CONTENT: test the sound absorption coefficient in reverberation chamber

COMMISSION UNIT: Ghost Acoustics.

TESTED BY: Mo fangshuo

CHECKED BY: Sheng shengwo

SEAL:



同濟大學
INSTITUTE OF ACOUSTICS
TONGJI UNIVERSITY
SHANGHAI CHINA 200092

DATE: 27 th, April. 2006

ADDRESS: No.1239,Si Ping Road,Shanghai,China. 200092

Test report of sound absorption coefficient in reverberation chamber

- 1_ Testing according standards.
ISO 354:2003(E), Acoustic-Measurement of sound absorption in a reverberation chamber
- 2_ Reverberation chamber: Volume: 268 m³
Floor area: 54 m²
- 3_ Measuring Apparatus
Audio Signal Testing and Analyzing System(Including EgoSystem U2A professional audio card), Microphone of type ACO4012 and Match Pre- Amplifier, USA ENG Power Amplifier, Dodecahedron Non-Direction Loudspeaker.
- 4_ Area of Object: 0.616m_0.616m_24=9.11m²
- 5_ Frequency Range
1/3 frequency interval Center Frequency (Hz)
100, 125, 160, 200, 250, 315, 400, 500, 630, 800,
1000, 1250, 1600, 2000, 2500, 3150, 4000, 5000
- 6_ Formulation:

$$A = \frac{55.3V}{CN} \left(\frac{1}{T_m} - \frac{1}{T_0} \right)$$

- A----- sound absorption content of one block
V----- volume of Chamber metres³
N----- Quantity of the test sample
T_m----- reverberation time (the object is not put in yet), seconds
T₀----- reverberation time (the object is put in), seconds
C----- sound velocity in the air. Metres per Second
C= 331+ 0.6 t (t – atmosphere temperature)

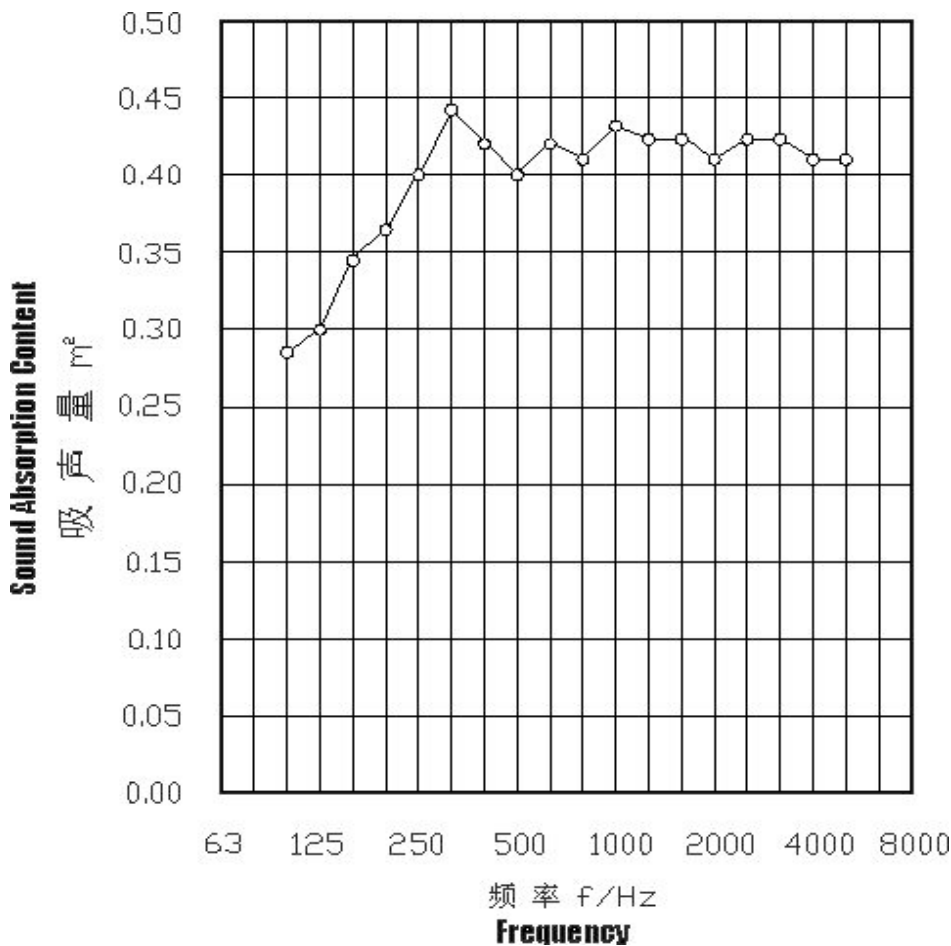


同济大学
INSTITUTE OF ACOUSTICS
TONGJI UNIVERSITY
SHANGHAI CHINA 200092

Test report of sound absorption coefficient in reverberation chamber

Company	Ghost Acoustics				
Object	Corner trap				
Test Date	2006-4-22	temperature	18_	humidity	70%
The specification And the installation of test object	Size of one block : 615 mm _615 mm_85 mm Quantity: 24 Condition for installing: tiled on floor in reverberation chamber				

Note: Test report is valid only for the test sample.



Frequency f (Hz)	Sound absorption Content A
100	0.28
125	0.30
160	0.34
200	0.37
250	0.40
315	0.44
400	0.42
500	0.40
630	0.42
800	0.41
1000	0.43
1250	0.42
1600	0.42
2000	0.41
2500	0.42
3150	0.42
4000	0.41
5000	0.41



同济大学
 INSTITUTE OF ACOUSTICS
 TONGJI UNIVERSITY
 SHANGHAI CHINA 200092