



सी एस आई आर - राष्ट्रीय भौतिक प्रयोगशाला  
CSIR-NATIONAL PHYSICAL LABORATORY

(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद)  
(Council of Scientific and Industrial Research)

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परीक्षण रिपोर्ट  
TEST REPORT

Sound Transmission Loss

दिनांक/Date	परीक्षण रिपोर्ट संख्या/Test Report No.	पृष्ठ / Page	पृष्ठों की संख्या / No. of Pages
07-12-2018	18121156/D1.07/T-083	1	2

1. Tested for : M/s. Envirotech Systems Pvt. Ltd.  
B-1A/19, First Floor,  
Commercial Complex, Sector-51,  
Noida - 201 307 (UP)  
Customer Ref. No.: Nil  
dated 05/12/2018
2. Description and Identification of Items : 86 mm thick, 'Envirotech' Wooden Sandwiched Acoustic Door Panel, in filled with Acoustic Insulation Material  
(Sample size - 930 mm x 630 mm x 86 mm),
3. Environmental Conditions : Room Temperature:  $20.0 \pm 5^{\circ}\text{C}$   
Relative Humidity:  $50.0 \pm 20\% \text{RH}$
4. Standards used and Associated Uncertainty : Working Standard Microphone,  
 $\pm 0.2 \text{ dB}$
5. Traceability of Standard Used : The standards used for testing are traceable to National Standards
6. Principle/Methodology of Testing and Test Procedure No. : IS: 9901 (Part III)-1981, DIN: 52210, Part VI-1989  
IS0: 10140 (Part I) - 2016,  
"Measurement of Sound Insulation in Building and of Building Elements"  
Part III: Laboratory Measurements of Airborne Sound Insulation in Building and of Building Elements  
Sub-Div # 1.07/A/Doc. 3/ TP # 15
7. Results:

As requested by the party, the acoustical material was tested for its airborne sound insulation by using two reverberation chambers under existing environmental conditions. The sample was fixed in the common opening between the two chambers. The volume of the source room was  $257 \text{ m}^3$  and that of the receiver room was  $271 \text{ m}^3$ . Adequate diffusion excited in both the chambers.

परीक्षणकर्ता:

Tested by: (Dr. Y. K. Yadav)

जाँचकर्ता:

Checked by: (Dr. Kirti Soni)

प्रभारी वैज्ञानिक:

Scientist-in-charge: (Dr. Mahavir Singh)

जारीकर्ता:

Issued by:

डॉ० सुशील कुमार  
Dr. Sushil Kumar



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Using filtered noise in 1/3-octave band, the airborne sound insulation index was evaluated by measuring the average sound pressure levels generated in the source room and the receiver room and by measuring the equivalent absorption in the receiver room. The results are given below:

1/3-Octave Band Center Frequency (Hz)	Airborne Sound Insulation Index (dB)
100	21
125	21
160	27
200	31
250	31
315	36
400	43
500	45
630	45
800	48
1000	49
1250	51
1600	53
2000	54
2500	54
3150	54
4000	56

Using the standard reference curve, the sound transmission class (STC) was found to be 45.

The evaluated uncertainty in measurement is  $\pm 1.0$  dB which is at a coverage factor  $k = 2$  and which corresponds to a coverage probability of approximately 95% for normal distribution.

8. Date of Testing : 06-12-2018

9. Remarks : Nil

परीक्षणकर्ता:  
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