सी एस आई आर – राष्ट्रीय भौतिक प्रयोगशाला
CSIR–NATIONAL PHYSICAL LABORATORY
(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्)
(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
05-09-2014	**14080620/D5.07/A/T-032**	**1**	**2**

1. Tested for : M/s. Envirotech System Pvt. Ltd.
   B-1A/19, Ist Floor,
   Commercial Complex, Sector-51
   Noida – 201 307
   Customer Ref. No.: Nil
   dated 28/08/2014

2. Description and Identification of Items : 100 mm thick Sliding Partition / Movable wall panel both faces laminated with 12 mm thick MDF board and Acoustic Insulation Material filled in between (sample size - 93 cm x 63 cm)

3. Environmental Conditions : Field Temperature: 28.0 ^{0}C
   Relative Humidity: 70.0 %RH

4. Standards used and Associated Uncertainty : Working Standard Microphone, ± 0.2 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 IV-1984
   IS0: 140 (Part III) – 1995,
   "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 # 5.07/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 m^3 and that of the receiver room was 271 m^3. Adequate diffusion excited in both the chambers.

परीक्षणकर्त्ता: Tested by: (Mr. Gurbir Singh)
जाँचकर्त्ता: Cheked by: (Dr. Mahavir Singh)
प्रभारी वैज्ञानिक: Scientist-in-charge: (Dr. T. K. Saxena)
जारीकर्त्ता: Issued by: डॉ. वी. के. गुम्बर Dr. V. K. Gumber

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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	14
125	17
160	20
200	28
250	29
315	34
400	37
500	41
630	41
800	44
1000	43
1250	48
1600	47
2000	47
2500	48
3150	50
4000	51

Using the standard reference curve, the sound transmission class (STC) was found to be 41.

The evaluated uncertainty in measurement is ± 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 : 02-09-2014

9. Remarks : Nil

परीक्षणकर्त्ता: Tested by: (Mr. Gurbir Singh)

जाँचकर्त्ता: Cheked by: (Dr. Mahavir Singh)

प्रभारी वैज्ञानिक: Scientist-in-charge: T. K. Saxena (Dr. T. K. Saxena)

जारीकर्त्ता: Issued by: डॉ. वी. के. गुम्बर Dr. V. K. Gumber