

ACOUSTIC LOGIC CONSULTANCY

noise and vibration consultants
abn 11 068 954 343

DIRECTORS:
Matthew Palavidis
Victor Fattoretto

Reference: 2006189/2702A/BW
27 February, 2006

Acoustic Supplies Pty Ltd
16 Anzac Street
Greenacre NSW 2190

No. Pages: 4 **Fax: 9326 4893**

ATTN: MR WILLIAM LEONG

ACOUSTIC SUPPLIES - FLOOR SAMPLES ACOUSTIC TESTING

1. INTRODUCTION

This report provides the results of our measurements of the acoustic performance of the timber floor acoustic samples conducted within the Regency residential development, Sydney. The impact isolation test was conducted on the 24th of February, 2006.

2. MEASUREMENT EQUIPMENT

A Brüel & Kjaer type 3204 tapping machine was used to generate a standardised impact sound source. The tapping machine was placed on the flooring system and a measurement of the transmitted sound was taken in the receiving room below. The background noise and reverberation time of the receiving room was also measured.

Noise measurements were obtained using a CEL-593 Type 1 Sound Level Analyser, set to A-weighted fast response. The sound level meter was calibrated before and after the measurements using a RION NC-73 Sound Level Calibrator. No significant drift was recorded.

Directors | Matthew Palavidis | Victor Fattoretto

Sydney | Ph 02 8338 9888 | fax 02 8338 8399 | 9 Sarah Street Mascot NSW 2020
Melbourne | Ph 03 9614 3199 | fax 03 9614 3755 | Level 7, 31 Queen Street Melbourne VIC 3000
Canberra | Ph 02 6162 9797 | fax 02 6162 9711 | Unit 14/71 Leichhardt Street Kingston ACT 2604

3. TEST PROCEDURE

The general method employed to conduct the impact noise isolation measurements is consistent with International standard ISO 140-7, “Acoustics-Measurement of sound insulation in buildings and of building elements - Part 7: Field measurements of impact sound insulation of floors.”

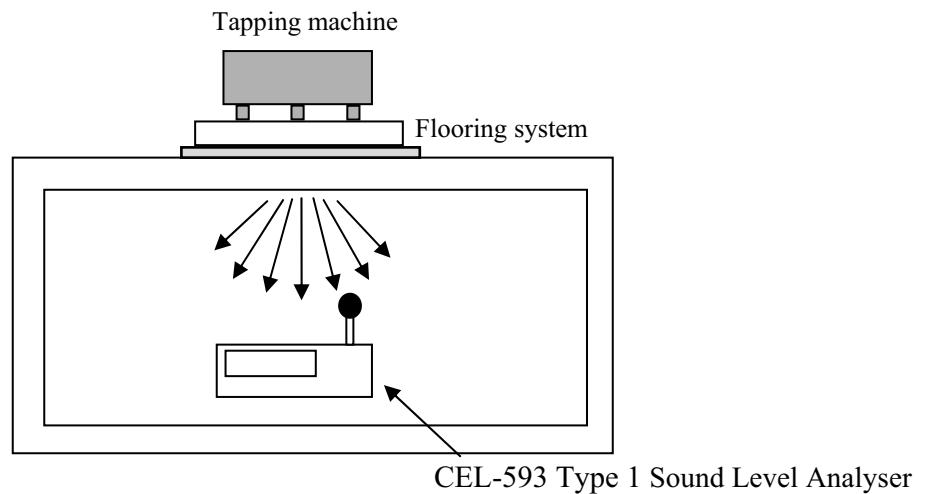


Figure 1 - Tapping Test Procedure

4. TEST RESULTS

The FIIC and L_{ntw} rating for the floor samples was determined using noise levels obtained from the test samples and the acoustic characteristic of the receiving room. The field results for the tests are given in Table 1 below.

The 2005 BCA criteria for the separation of hard floors is a minimum L_{ntw} rating of 62. Note: a lower L_{ntw} represents a greater acoustic separation. Measured FIIC performance has also been provided as a comparison.

Table 1 - Measured FIIC and $L'_{n,w} + C_1$ Results

Floor	Sample Number	FIIC	$L'_{n,w} + C_1$	Complies with BCA 2005
5mm Vibra Mat	3	60	50	Yes
5mm Vibra Mat + 2mm Soflon	4	62	48	Yes

5. CONCLUSION

The Field impact isolation class (FIIC) has been measured for 5mm thick Vibra Mat and 5mm thick Vibrat with 2mm thick Soflon acoustic floor samples within the Regency residential development situated in Sydney.

The measured L_{ntw} and FIIC results have been presented in Section 4 of this report.

We trust this information is satisfactory. Please contact us should you have any further queries.

Report prepared by

A handwritten signature in black ink that reads "B.G. White".

ACOUSTIC LOGIC CONSULTANCY PTY LTD
Ben White