

**PROJECT NUMBER:** 3018 02 50879-7  
**STORK – TWIN CITY TESTING CORPORATION**

**PAGE:** 1 of 4  
**DATE:** October 21, 2002  
**REVISED:** April 24, 2003

**STORK \ TWIN CITY TESTING CORPORATION**  
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**FIELD IMPACT INSULATION CLASS (F-IIC)**  
**TESTING CONDUCTED AT MAINSTAY SUITES,**  
**1275 ASSOCIATES DRIVE, DUBUQUE, IA 52002**

Prepared for:

**SPACEJOIST**  
**Attention: Mr. Roger Gibbs**  
**P.O. Box 276**  
**Dyersville, IA 52040**

**Client Purchase Order Number: Contract Dated 8/26/02**

**Conducted and Prepared by:**



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**Reviewed by:**



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**The test results contained in this report pertain only to the actual assemblies tested and not necessarily to all similar constructions.**

**FIELD IMPACT INSULATION CLASS (F-IIC) – ASTM E1007-97**

**INTRODUCTION:**

This report presents the results of acoustical testing of the floor/ceiling assembly between rooms 226 and 326, at the MainStay Suites, 1275 Associates Drive, Dubuque, IA. This test was requested by Mr. Roger Gibbs of Spacejoist on September 30, 2002 and was conducted on October 11, 2002.

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**TEST RESULTS SUMMARY:**

	<b><u>Test Configuration:</u></b>	<b><u>F-IIC</u></b>	<b><u>Def. (dB)</u></b>
<i>Floor/Ceiling</i>			
Sample ceramic tile / thinset on existing Maxxon Underlayment		48	19

**FLOOR/CEILING DESCRIPTION:**

The test was conducted between units 326 and 226. The floor ceiling assembly consisted of the following components:

- 3’x3’ sample of 12”x12”x1/4” ceramic tile / 24-hour-cure thinset on existing Maxxon Underlayment
- 3/4” thick Maxxon Underlayment
- 3/4” OSB sub-floor
- SpaceJoist Metal Web Truss System, 20’x16” deep – 24” O.C.
- R11 Fiberglass insulation
- 1/2” Resilient channel – 24” O.C.
- 5/8” type X gypsum board

Estimated weight of the system was 14.6 psf.

The floor ceiling description was provided by Spacejoist personnel, and was not verified by TCT.

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**TEST PROCEDURE AND EQUIPMENT:**

ASTM Standard E1007 (97) was followed in every respect, except that the thinset was allowed to cure for 12 hours. The instrumentation was calibrated before and after testing with a B+K 4230 sound level calibrator. The F-IIC value was obtained by applying the L<sub>N</sub> values to the standard contour of ASTM E989 (99).

<u>Manufacturer</u>	<u>Model</u>	<u>Description</u>	<u>S/N</u>
IVIE, Inc.	PC-40	Spectrum Analyzer	4587A130
Larson Davis	2541	1/2" Free Field Mic.	1150
Brüel & Kjær	4230	Sound Calibrator	282266
IVIE, Inc.	IE-20B	Noise Generator	741C853
Yorkville	E160P	Powered Loudspeaker	
Bruel & Kjaer	3204	Tapping Machine	84667

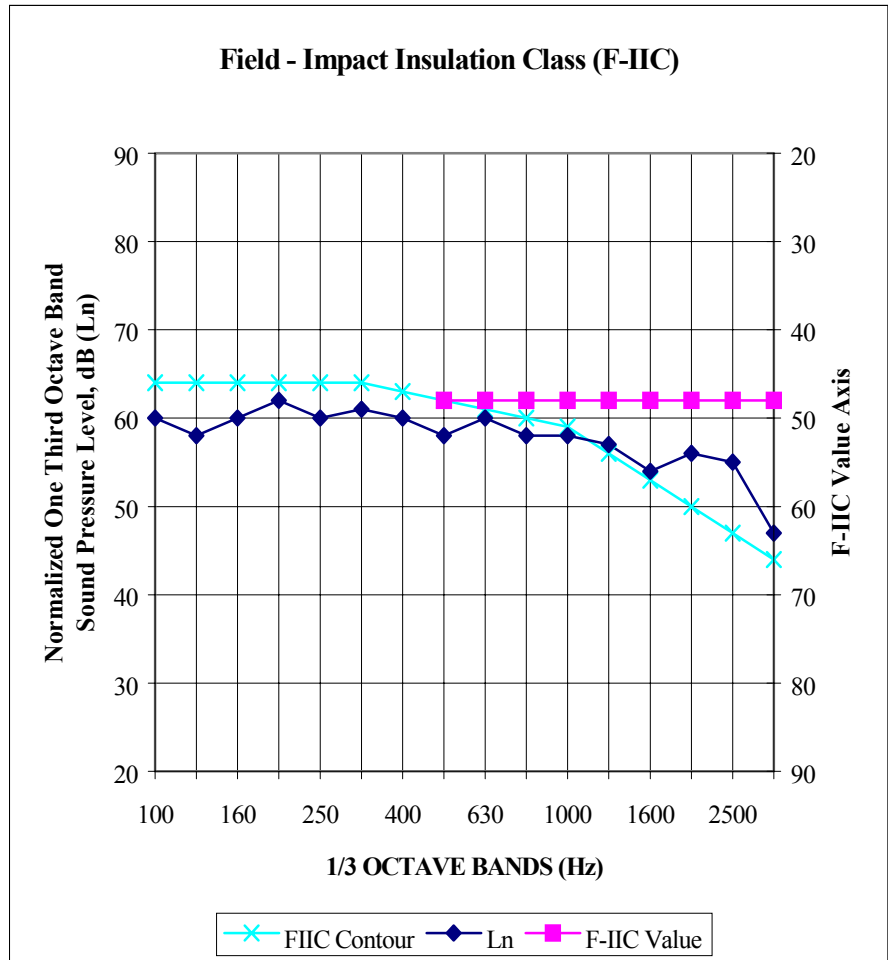
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**TEST RESULTS:**

Client: SpaceBist

Tested by: Jason Burggraff

1/3 Oct. Band, Hz	Ln (dB)	Def (dB)
100	60	0
125	58	0
160	60	0
200	62	0
250	60	0
315	61	0
400	60	0
500	58	0
630	60	0
800	58	0
1000	58	0
1250	57	1
1600	54	1
2000	56	6
2500	55	8
3150	47	3
Total Def.		19
IIC	48	



Ln = Normalized Sound Level (dB)  
 Def = Deficiencies (above IIC contour)

**SPECIMEN IDENTIFICATION:**

Source Room (upper) 326  
 Receive Room (lower) 226

Test Date: 11-Oct-02  
 Temp (F): 72.6 RH: 59%

**Specimen Description:**

**Type:** Floor/ceiling construction  
**Construction:** 3x3' area of 12"x12" Ceramic Tile - thinset - 3/4" Maxxon Underlay - 3/4" OSB - SpaceBist Metal Web System Truss (20' long, 16" deep, 24" O.C.) - fiberglass batting in cavities - 1/2" resilient channel (24" O.C.) - 5/8" gypsum board  
**Comments:** 24 hour-cure thinset was used, allowed to cure 12 hours before testing

**Nominal Dimensions:**

Sample Area, ft<sup>2</sup> 248  
 Receive Volume, ft<sup>3</sup> 1962