

Report No. J99025595

Date: October 6, 1999

REPORT NO. J99025595-001

**IMPACT SOUND TRANSMISSION TEST
AND CLASSIFICATION OF A SAMPLE OF FORMICA
LAMINATE FLOORING WITH QUIETWALK UNDERLAYMENT**

RENDERED TO

**MIDWEST PADDING L.L.C.
2500 OLD HADAR ROAD
NORFOLK, NE 68702**

INTRODUCTION

This report gives the results of an Impact Sound Transmission test on one sample of Formica laminate flooring with Quietwalk underlayment. The sample was selected and supplied by the client and was received at the laboratories on September 30, 1999. The sample appeared to be in new, unused condition upon arrival.

AUTHORIZATION

Purchase Order No. 067424 from Midwest Padding L.L.C.

TEST METHOD

The specimen was tested in accordance with the American Society for Testing and Materials designations ASTM E492-90, "Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine". It was classified in accordance with ASTM E989-89 (Re-approved 1994), entitled, "Standard Classification for Determination of Impact Insulation Class (IIC)".

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TEST METHOD - Cont'd

The method is designed to measure the impact sound transmission performance of a floor-ceiling assembly in a controlled laboratory environment. A standard tapping machine (B&K Type 3204) was placed at four positions on the test floor, which was covered with Formica Laminate Flooring over Quietwalk underlayment.

The test floor consists of a 100 sq. ft. opening that form the horizontal separation of the two rooms, one directly above the other. The structural members are an Open Joist 2000 system, 16 inches deep installed 24 inches on center. The sub flooring is 5/8 inch thick tongue and groove plywood. The bridging is a continuous 2 x 4 nailed to the bottom chord and the sides of the diagonals with 2 inch long nails. Resilient channels, 24 gauge galvanized steel were spaced 16 inches on center and attached to the bottom chord by screws. The insulation is 5 1/2 inches cellulose with a density of 1.6 pcf. The ceiling is gypsum board, 5/8 inches thick, with the long edges located between the joists perpendicular to the resilient channels, by means of 1 1/2 inch screws located 1/2 inch away from the edge and 3 inches from the long edges; screws are spaced 6 inches on center. Joints are taped and finished with two layers of compound.

The topping over the tongue and groove plywood sub-floor, is 1 1/2 inches of Gyp-Crete.

DESCRIPTION OF TEST SPECIMEN

The test specimen consisted of an 8 x 12 1/2 foot sample of the following combination:

Flooring

Formica Laminate
Flooring

Flooring Underlayment

Quietwalk

RESULTS OF TESTS

The data obtained in the room below the panel normalized to $A_0 = 10$ square meters, is as follows:

<u>1/3 Octave Band Center Frequency Hz</u>	<u>1/3 Octave Band Sound Pressure Level dB re 0.0002 Microbar Normalized to $A_0 = 10$ sq. M.</u>
100	66
125	66
160	65
200	63
250	61
315	57
400	52
500	48
630	43
800	36
1000	36
1250	33
1600	37
2000	40
2500	43
3150	39
Impact Insulation Class (IIC)	53

REMARKS

1. Aging Period: None
2. Ambient Temperature: 71°F
3. Relative Humidity: 39%



CONCLUSION

The test method employed for this test has no pass-fail criteria; therefore, the evaluation of the test results is left to the discretion of the client.

Date of Test: October 5, 1999

Report Approved by:

A handwritten signature in black ink that reads 'Norman H. Bay'. The signature is written in a cursive style.

Norman H. Bay, Manager
Acoustical Testing