

**REPORT**

FOR: Badger Cork

Impact Sound Transmission  
Test RAL™-IN95-43ON: Badger Cork 6 mm AcoustiCORK®  
Underlayment With A Parquet Wood Floor  
On 6" Precast Concrete Slabs  
With Suspended 5/8" Gypsum CeilingPage 1 of 3

Revision 17 February 1998

CONDUCTED: 17 November 1995

TEST METHOD

Unless otherwise designated, the measurements reported below were made with all facilities and procedures in explicit conformity with the ASTM Designations E492-90 and E989-89, as well as other pertinent standards. Riverbank Acoustical Laboratories has been accredited by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) for this test procedure. A description of the measuring technique is available separately. The serial number of the measuring microphone was 1440522.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the client as a Badger Cork 6 mm AcoustiCORK underlayment with a parquet wood floor on 6" precast concrete slabs with suspended 5/8" gypsum ceiling. The overall dimensions of the specimen were nominally 4.27 m (168 in.) wide by 6.10 m (240 in.) long and 411 mm (16.2 in.) thick. The specimen was constructed directly in the laboratory's 4.27 m (14 ft) by 6.10 m (20 ft) test opening and was sealed on the periphery (both sides) with a dense mastic. The description of the specimen was as follows: From the top down, the floor consisted of 7.9 mm (0.313 in.) thick, parquet flooring glued to Badger Cork 6 mm (0.236 in.) thick, AcoustiCORK underlayment. The 6 mm AcoustiCORK was set on a 6 mil plastic vapor barrier which was laid directly on the concrete slab sub-floor. The sub-floor consisted of ten nominally 610 mm (24 in.) wide by 4.23 m (166.5 in.) by 152 mm (6 in.) thick wire reinforced concrete slabs. Split drive pins were inserted into the bottom of the slabs on 1.22 m (48 in.) centers and used to tie 12 gauge hanger wire for the suspended ceiling. The hanger wires were tied to allow for a nominal 229 mm (9 in.) plenum depth from the bottom of the slabs to the top of the ceiling. Cold rolled steel carrying channels were tied to the hanger wires and twelve 24 gauge galvanized steel DWC channels (hat channels) were saddle tied perpendicular to the cold rolled channels with double strands of 24 gauge tie wire. A layer of 16 mm (0.625 in.) thick Type X wallboard was attached to the DWC channels. The joints between the wallboard sheets were taped and covered with joint compound. The plenum between the sub-floor and the ceiling contained a single layer of 89 mm (3.5 in.) thick, R-11 unfaced fiberglass insulation. The weight of the entire specimen as determined was 5,810 kg (12,810 lbs) an average of 223.5 kg/m<sup>2</sup> (45.7 lbs/ft<sup>2</sup>). The source and receiving room temperatures at the time of the test were 20°C (68±2°F) and 57±2% relative humidity.

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.



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Badger Cork

RAL™-IN95-43

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TEST RESULTS

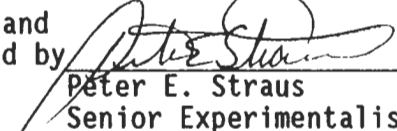
Sound pressure levels at 1/3 octave intervals, normalized to 10 square meters, are given in tabular form. The impact insulation class, IIC, was computed in accordance with ASTM E989-89 and ASTM E492-90.

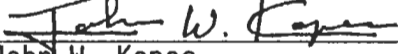
<u>FREQ.</u>	<u>ISL</u>	<u>C.L.</u>	<u>DEV.</u>	<u>FREQ.</u>	<u>ISL</u>	<u>C.L.</u>	<u>DEV.</u>
100	59	0.43	8	630	29	0.32	0
125	51	0.37	0	800	22	0.20	0
160	49	0.75	0	1000	14 *	0.40	0
200	45	0.67	0	1250	9 *	0.33	0
250	43	0.69	0	1600	4 *	0.18	0
315	42	0.53	0	2000	3 *	0.16	0
400	39	0.88	0	2500	3 *	0.19	0
500	36	0.58	0	3150	3 *	0.13	0

IIC = 61

ABBREVIATION INDEX

- FREQ. = FREQUENCY, HERTZ, (cps)
- ISL = IMPACT SOUND PRESSURE LEVEL, dB
- C.L. = UNCERTAINTY IN dB, FOR A 95% CONFIDENCE LIMIT
- DEV. = DEVIATION
- IIC = IMPACT INSULATION CLASS
- \* = INDICATES A CORRECTION WAS APPLIED TO THE DATA DUE TO BACKGROUND NOISE LEVELS IN THE RECEIVING ROOM

Tested and Reviewed by   
Peter E. Straus  
Senior Experimentalist

Submitted by   
John W. Kopec  
Laboratory Manager

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