

**REPORT**

FOR: Badger Cork

Impact Sound Transmission  
Test RAL™-IN98-41ON: An 8" Concrete Slab Floor With  
Ceramic Tile On 13 mm AcoustiCork®  
CA8828 Cork UnderlaymentPage 1 of 3

CONDUCTED: 16 December 1998

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 951371.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated as an 8" concrete slab floor with ceramic tile on 13 mm AcoustiCork® CA8828 cork underlayment. The overall dimensions of the specimen were nominally 4.27 m (168 in.) wide by 6.10 m (240 in.) long and 219 mm (8.6 in.) thick. The specimen was constructed by Klamer Construction Co. 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 8 mm (0.31 in.) thick glazed ceramic floor tile over 13 mm (0.5 in.) thick AcoustiCork® CA8828 cork underlayment that was laid over 15# building felt. This floor system was constructed on a 203 mm (8 in.) thick pre-stressed concrete sub-floor. The sub-floor consisted of ten nominally 610 mm (24 in.) wide by 4.24 m (167 in.) long by 203 mm (8 in) thick Flexicore® Model #824A-D-22 precast concrete slabs. The gaps between the slabs were filled with sand and sealed with caulk. The tile was set with accelerated latex modified thin-set mortar and grouted with polymer enhanced grout. The floor system was allowed to cure a minimum of 14 days before the test was conducted. The weight of the entire floor assembly as calculated was 8,052 kg (17,751 lbs) an average of 309.7 kg/m<sup>2</sup> (62.8 lbs/ft<sup>2</sup>). The source and receiving room temperatures at the time of the test were 20°C (68±2°F) and 53±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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# RIVERBANK ACOUSTICAL LABORATORIES

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WALLACE CLEMENT SABINE

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RAL™-IN98-41

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### TEST RESULTS

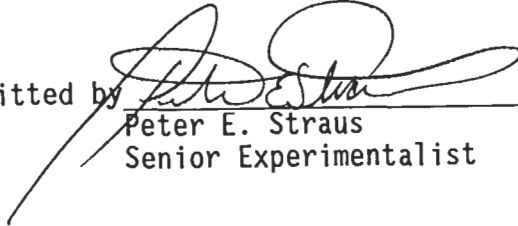
Sound pressure levels at 1/3 octave intervals, normalized to 10 square meters, are given in tabular form. The impact insulation class, IIC, was computed in accordance with ASTM E492-90 and ASTM E989-89.

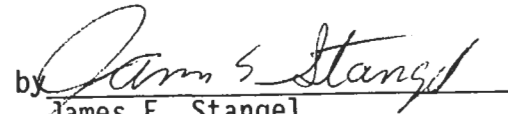
<u>FREQ.</u>	<u>L<sub>n</sub></u>	<u>C.L.</u>	<u>DEV.</u>	<u>FREQ.</u>	<u>L<sub>n</sub></u>	<u>C.L.</u>	<u>DEV.</u>
100	58	0.28	0	630	54	0.27	0
125	65	0.28	3	800	51	0.29	0
160	68	0.36	6	1000	44	0.23	0
200	67	0.13	5	1250	44	0.24	0
250	67	0.35	5	1600	42	0.51	0
315	69	0.38	7	2000	40	0.53	0
400	64	0.21	3	2500	39	0.50	0
500	60	0.26	0	3150	36	0.36	0

IIC = 50

### ABBREVIATION INDEX

FREQ. = FREQUENCY, HERTZ, (cps)  
L<sub>n</sub> = NORMALIZED IMPACT SOUND PRESSURE LEVEL, dB  
C.L. = UNCERTAINTY IN dB, FOR A 95% CONFIDENCE LIMIT  
DEV. = DEVIATION  
IIC = IMPACT INSULATION CLASS

Submitted by   
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Reviewed by   
James E. Stangel  
Laboratory Manager

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