

REPORT

FOR: Tile Institute of America
ON: Badger Cork 6 mm AcoustiCORK™
Underlayment With Ceramic Tile On A
California Lightweight Floor

Sound Transmission Loss
Test RAL™-TL95-118

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CONDUCTED: 14 April 1995

TEST METHOD

Unless otherwise designated, the measurements reported below were made with all facilities and procedures in explicit conformity with the ASTM Designations E90-90 and E413-87, 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 microphone used was a Bruel & Kjaer serial number 1440522.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated as Badger Cork 6 mm AcoustiCORK™ underlayment with ceramic tile on a California lightweight floor. The overall dimensions of the specimen were nominally 4.27 m (168 in.) wide by 6.10 m (240 in.) long and 361 mm (14.2 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 standard grade 152 mm (6 in.) by 152 mm (6 in.) by 6.4 mm (0.25 in.) thick quarry tile by Summitville grouted with Summitville sanded tile grout. The tile was set to 11 mm (0.438 in.) thick Hardibacker glass mesh mortar units with Bonsal flexible multi-purpose thin set mortar. The glass mesh mortar units were set on Badger Cork 6 mm (0.236 in.) thick, AcoustiCORK™ underlayment. The 6 mm AcoustiCORK™ was laid on a nominally 41 mm (1.625 in.) thick, 111.6 pcf density Gyp-Crete 2000 floor. The Gyp-Crete 2000 was poured over a layer of 15# roofing felt which was laid directly on the 19/32 plywood sheathing sub-floor. The plywood was attached to two-by-ten wood joists that were spaced on 406 mm (16 in.) centers. The cavities between the joists contained 89 mm (3.5 in.) thick R-11 fiberglass insulation batt. RC-1 resilient channels were attached to the joists and the 16 mm (0.625 in.) thick Type X drywall ceiling was attached to the RC-1 channels. The specimen was allowed to cure a minimum of 28 days prior to testing. A visual inspection verified the description of the specimen. The weight of the entire specimen as determined was 3971.5 kg (8755.5 lbs) an average of 152.75 kg/m² (31.3 lbs/ft²). The transmission area used in the calculations was 26 m² (280 ft²). The source and receiving room temperatures at the time of the test were 20°C (68±2°F) and 63±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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OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.



REPORT

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Page 2 of 3TEST RESULTS

Sound transmission loss values are tabulated at the eighteen standard frequencies. A graphic presentation of the data and additional information appear on the following pages. The precision of the TL test data are within the limits set by the ASTM Standard E90-90.

<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>	<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>
100	38	2.02	0	800	66	0.22	0
125	45	2.62	0	1000	69	0.20	0
160	45	1.25	2	1250	72	0.24	0
200	43	0.55	7	1600	75	0.21	0
250	49	0.35	4	2000	77	0.16	0
315	51	0.29	5	2500	80	0.14	0
400	54	0.38	5	3150	84	0.11	0
500	57	0.36	3	4000	86	0.10	0
630	61	0.33	0	5000	87	0.08	0

STC = 60

ABBREVIATION INDEX

FREQ. = FREQUENCY, HERTZ, (cps)

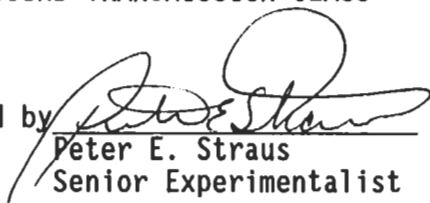
T.L. = TRANSMISSION LOSS, dB

C.L. = UNCERTAINTY IN dB, FOR A 95% CONFIDENCE LIMIT

DEF. = DEFICIENCIES, dB<STC CONTOUR

STC = SOUND TRANSMISSION CLASS

Submitted by


 Peter E. Straus
 Senior Experimentalist

Reviewed by


 John W. Kopec
 Laboratory Manager

Revision 9 June 1995

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