

REPORT

FOR: Badger Cork

Sound Transmission Loss
Test RAL™-TL95-256ON: Badger Cork 6 mm AcoustiCORK®
Underlayment With Ceramic Tile On A
6" Precast Concrete Slab Floor
With Suspended 5/8" Gypsum CeilingPage 1 of 3

CONDUCTED: 23 August 1995

Revision 17 February 1998

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 1330828.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the client as a Badger Cork 6 mm AcoustiCORK underlayment with ceramic tile on a 6" precast concrete slab floor 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 422 mm (16.625 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 glazed ceramic tile set on Badger Cork 6 mm (0.236 in.) thick, AcoustiCORK underlayment. The 6 mm AcoustiCORK was set on a layer of 15 lb. roofing felt 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 6,281.5 kg (13,848 lbs) an average of 241.6 kg/m² (49.5 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 23°C (74±2°F) and 64±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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TEST 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.

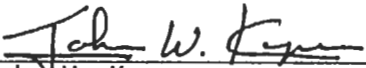
<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>	<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>
100	32	0.19	0	800	67	0.26	0
125	41	0.12	3	1000	72	0.27	0
160	46	0.58	1	1250	76	0.23	0
200	42	0.36	8	1600	80	0.25	0
250	48	0.36	5	2000	83	0.21	0
315	52	0.38	4	2500	84	0.15	0
400	54	0.35	5	3150	89	0.11	0
500	58	0.29	2	4000	92	0.10	0
630	63	0.28	0	5000	94	0.11	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

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