RIVERBANK ACOUSTICAL LABORATORIES

OF

IIT RESEARCH INSTITUTE

1512 BATAVIA AVENUE
GENEVA, ILLINOIS 60134

630/232-0104

FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

FOR: Kährs International, Inc.

Sound Transmission Loss
Test RAL™-TL96-348

ON: Kährs 15 mm Engineered Wood Flooring
On 3.2 mm Foam Underlay Pad Set On
1.25 mm Nobleseal SIS™ Sheet Over A
Flexicore® Precast Concrete Slab Floor,
No Ceiling

CONDUCTED: 3 December 1996

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 951371.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated as Kährs 15 mm Engineered Wood Flooring on 3.2 mm foam underlay pad set on 1.25 mm Nobleseal SIS™ Sheet over a Flexicore™ precast concrete slab floor, no ceiling. The overall dimensions of the specimen were nominally 4.27 m (168 in.) wide by 6.10 m (240 in.) long and 222.5 mm (8.76 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 15 mm (0.59 in.) thick Kährs Engineered Wood Flooring set over a layer of 3.2 mm (0.122 in.) thick foam underlay pad which was laid over a layer of 1.25 mm 0.047 in.) thick Nobleseal SIS™ sound isolation sheet. The Nobleseal was laid directly over a 203 mm (8 in.) thick concrete slab 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. At the request of the manufacturer the details of the construction were purposely withheld from this report in order that the manufacturer may control full proprietary rights regarding the product. The weight of the specimen as determined was 7,704.6 kg (16,985.5 lbs) an average of 296.3 kg/m^2 (60.7 lbs/ft^2). The transmission area used in the calculations was 26 m^2 (280 ft^2). The source and receiving room temperatures at the time of the test were 19°C (66±2°F) and 53±2% relative humidity.

RIVERBANK ACOUSTICAL LABORATORIES

OF
IIT RESEARCH INSTITUTE

1512 BATAVIA AVENUE
GENEVA, ILLINOIS 60134

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

Kährs International, Inc.

RAL™-TL96-348

3 December 1996

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.

FREQ.	T.L.	C.L.	DEF.	FREQ.	T.L.	C.L.	DEF.
100	31	0.90	0	800	61	0.29	0
125	41	0.23	0	1000	65	0.29	0
160	41	0.27	0	1250	65	0.22	0
200	38	0.13	4	1600	66	0.19	0
250	42	0.30	3	2000	68	0.15	0
315	41	0.30	7	2500	74	0.14	0
400	43	0.31	8	3150	81	0.10	0
500	51	0.36	1	4000	83	0.08	0
630	57	0.30	0	5000	85	0.08	0

STC = 52

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 _____ Reviewed by _____

Peter E. Straus
Senior Experimentalist

John W. Kopec
Laboratory Manager

RIVERBANK ACOUSTICAL LABORATORIES

OF
IIT RESEARCH INSTITUTE

1512 BATAVIA AVENUE
GENEVA, ILLINOIS 60134

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

TRANSMISSION LOSS REPORT
RAL-TL96-348