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FABRITRAK SYSTEMS, INC.
ACOUSTICAL PERFORMANCE TEST REPORT

SCOPE OF WORK
ASTM C423 SOUND ABSORPTION TESTING ON
FABRIC OVER TERRA CORE POLY™ INFILL ABSORPTION PANEL

REPORT NUMBER
I1433.01-113-11-R0

TEST DATE
02/26/18

ISSUE DATE
04/05/18

RECORD RETENTION END DATE
02/26/22

PAGES
10

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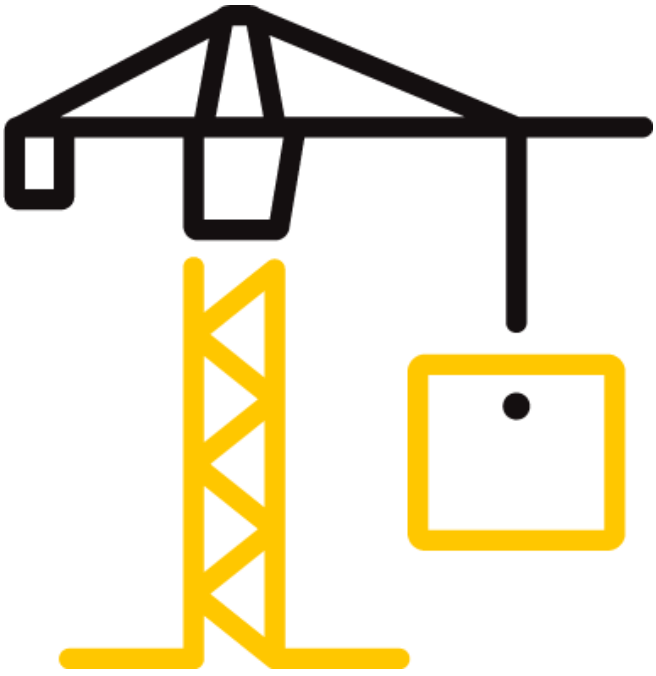

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TEST REPORT FOR FABRITRAK SYSTEMS, INC.
Report No.: I1433.01-113-11-R0
Date: 04/05/18

REPORT ISSUED TO
FABRITRAK SYSTEMS, INC.
111 West Park Drive
Mt. Laurel, New Jersey 08054

SECTION 1
SCOPE

Intertek Building & Construction (B&C) was contracted by FabriTrak Systems, Inc. to perform a sound absorption test. Results obtained are tested values and were secured by using the designated test method(s). The complete test data is included herein. The client provided the test specimen. All measurements were conducted in the HT test chambers at Intertek B&C located in York, Pennsylvania.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

SECTION 2
SUMMARY OF TEST RESULTS

SERIES/MODEL	Fabric over Terra Core Poly™ Infill							
SAMPLE TYPE	Absorption panel							
MOUNTING TYPE	Type E-400							
DATA FILE NO.	1/3 OCTAVE SOUND ABSORPTION COEFFICIENTS						NRC	SAA
	125	250	500	1000	2000	4000		
I1433.01A	0.77	0.86	0.66	0.82	0.84	0.85	0.80	0.81

For INTERTEK B&C:

COMPLETED BY:	Daniel J. Poet	REVIEWED BY:	Kurt A. Golden
TITLE:	Technician II Department	TITLE:	Project Lead Acoustical Testing
SIGNATURE:	Daniel Poet Digitally Signed by: Daniel Poet	SIGNATURE:	Kurt A. Golden Digitally Signed by: Kurt A. Golden
DATE:	04/05/18	DATE:	04/05/18

DJP:jmcs

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SECTION 3
TEST METHODS

The specimens were evaluated in accordance with the following:

ASTM C423-17, *Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method*

ASTM E795-16, *Standard Practices for Mounting Test Specimens During Sound Absorption Tests*

SECTION 4
SPECIMEN MOUNTING

For the Type E-400 mounting, the specimen was placed on the Type E test assembly so that the absorptive face of specimen was suspended 400 mm above the floor of the reverberation room. The perimeter of the specimen was sealed to the test assembly with duct tape. The perimeter of the test assembly was sealed to the floor with duct tape.

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SECTION 5
EQUIPMENT

The equipment listed below meets the requirements of the test methods stated in Section 3 of this report.

INSTRUMENT	MANUFACTURER	MODEL	DESCRIPTION	ASSET #	DATE OF CALIBRATION
Data Acquisition Card	National Instruments	PXI-4462	Data Acquisition Card	65124	06/16 *
Data Acquisition Card	National Instruments	PXI-4462	Data Acquisition Card	65126	05/16 *
Data Acquisition Card	National Instruments	PXI-4462	Data Acquisition Card	65125	05/16 *
Receive Room Microphone	PBC Piezotronics	378B20	Microphone and Preamplifier	64907	12/17
Receive Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64908	12/17
Receive Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64909	12/17
Receive Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64910	12/17
Receive Room Microphone	PCB Piezotronics	378B20	Microphone and Preamplifier	64911	01/18
Receive Room Environmental Indicator	Comet	T7510	Receive Room	64915	03/17
Microphone Calibrator	Norsonic	1251	Pistonphone Calibrator	Y002929	04/17

**- Note: The calibration frequency for this equipment is every two years per the manufacturer's recommendation.*

Test Chamber:

	VOLUME	DESCRIPTION
RECEIVE ROOM	234 m^3	Rotating vane and stationary diffusers Temperature and humidity controlled Isolation pads under the floor

N/A-Not Applicable

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SECTION 6
LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Daniel Poet	Intertek B&C
Kurt Golden	Intertek B&C

SECTION 7
TEST PROCEDURE

The sensitivity of the microphones was checked before measurements were conducted. Empty room sound absorption measurements were conducted before the specimen was installed. Full room sound absorption measurements were conducted after the specimen was installed.

For the empty and full room measurements, ten decay measurements were conducted at each of the five microphone positions. Data was obtained at 1/3 octave band frequencies ranging from 80 to 5000 hertz. The air temperature and relative humidity conditions were monitored and recorded during the measurements.

Intertek B&C will store samples of test specimens for four years.

SECTION 8
TEST CALCULATIONS

The Sound Absorption Coefficient is the full room absorption minus the empty room absorption divided by the area of the sample in m^2. The Sound Absorption Coefficient is dimensionless.

The Noise Reduction Coefficient (NRC) rating is the arithmetic average of the sound absorption coefficients at 250, 500, 1000 and 2000 hertz. The average is rounded to the nearest multiple of 0.05.

The Sound Absorption Average (SAA) rating is the arithmetic average of the sound absorption coefficients at the frequencies ranging from 200 to 2500 hertz. The average is rounded to the nearest multiple of 0.01.

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SECTION 9
TEST SPECIMEN DESCRIPTION

Four, 1.22 m by 1.22 m (48" by 48"), panels and two, 1.22 m by 0.30 m (48" by 12"), panels, were arranged to produce the 2.44 m by 2.74 m (96" by 108") test specimen. The infill was covered with a fabric which had a thickness of 0.36 mm (0.01") and weighed 0.035 lbs/ ft^2. The total weight of the specimen was 10.94 kg (24.12 lbs).

Photographs are included in Section 11.

The client did not supply a report drawing of the test specimen.

DESCRIPTION	THICKNESS	WEIGHT
Fabric over Terra Core Poly™ Infill	23.11 mm	1.44 kg/ m^2
	0.91"	0.30 lbs/ft^2

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SECTION 10

TEST RESULTS

I1433.01A DATA

SPECIMEN AREA	6.69 m²	
MOUNTING TYPE	E-400 mount	
	EMPTY	**FULL**
TEMP °C	22.7	21.4
RH %	53	51
B.P. (mb)	992	994

FREQ (Hz)	**EMPTY ROOM ABSORPTION** (m^2)	**UNCERTAINTY**	**FULL ROOM ABSORPTION** (m^2)	**UNCERTAINTY**	**ABSORPTION COEFFICIENT**	**RELATIVE UNCERTAINTY**
80	4.15	0.470	6.04	0.334	0.28	0.086
100	4.98	0.141	9.32	0.383	0.65	0.061
125	5.02	0.333	10.16	0.207	0.77	0.059
160	4.28	0.113	9.58	0.123	0.79	0.025
200	4.23	0.087	10.23	0.098	0.90	0.020
250	4.92	0.087	10.69	0.039	0.86	0.014
315	5.09	0.093	10.47	0.056	0.80	0.016
400	5.17	0.040	9.73	0.051	0.68	0.010
500	5.14	0.034	9.55	0.037	0.66	0.008
630	4.84	0.051	10.15	0.020	0.79	0.008
800	5.03	0.025	10.38	0.017	0.80	0.004
1000	5.03	0.020	10.54	0.016	0.82	0.004
1250	5.37	0.033	10.84	0.014	0.82	0.005
1600	5.42	0.022	11.01	0.011	0.84	0.004
2000	5.32	0.007	10.93	0.044	0.84	0.007
2500	5.55	0.012	11.59	0.120	0.90	0.018
3150	6.13	0.008	11.85	0.008	0.86	0.002
4000	6.53	0.008	12.21	0.005	0.85	0.001
5000	7.03	0.006	12.78	0.005	0.86	0.001

NRC RATING	0.80	*(Noise Reduction Coefficient)*
SAA RATING	0.81	*(Sound Absorption Average)*

Notes:

1) The NRC rating is the arithmetic average of the sound absorption coefficients at 250, 500, 1000, and 2000 hertz. The average is rounded to the nearest multiple of 0.05.
2) The SAA rating is the arithmetic average of the sound absorption coefficients at the frequencies ranging from 200 to 2500 hertz. The average is rounded to the nearest multiple of 0.01.

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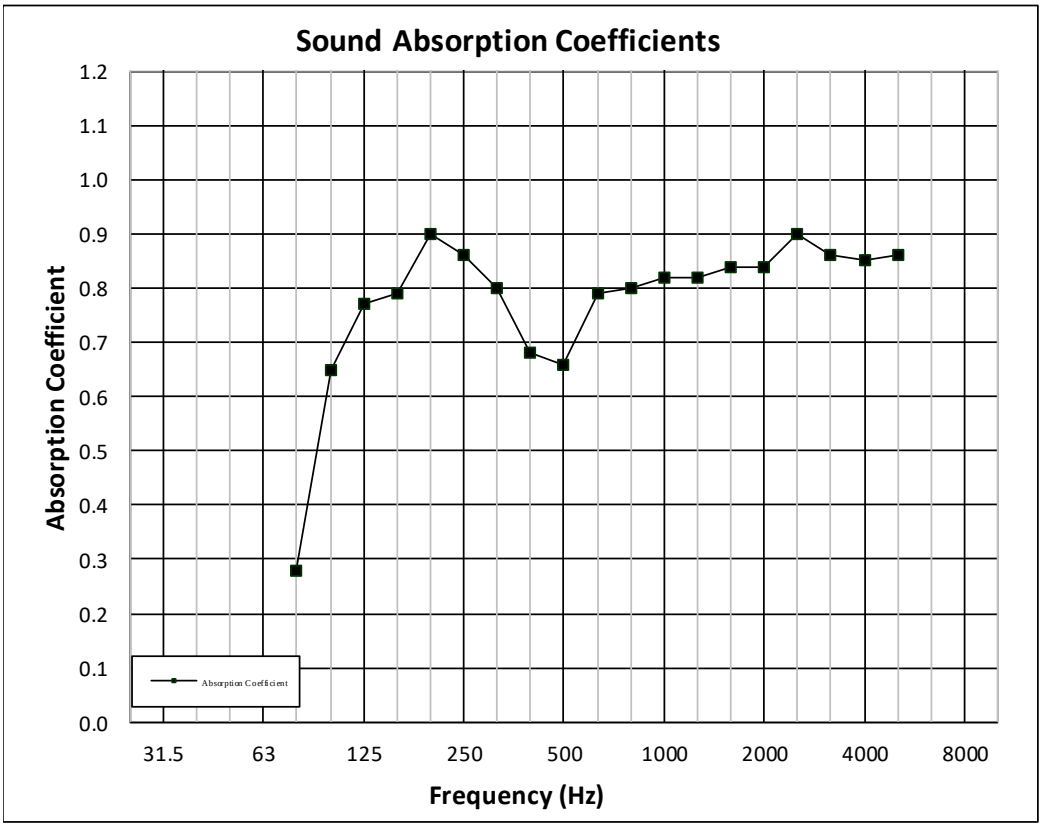
I1433.01A GRAPH



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SECTION 11
PHOTOGRAPHS

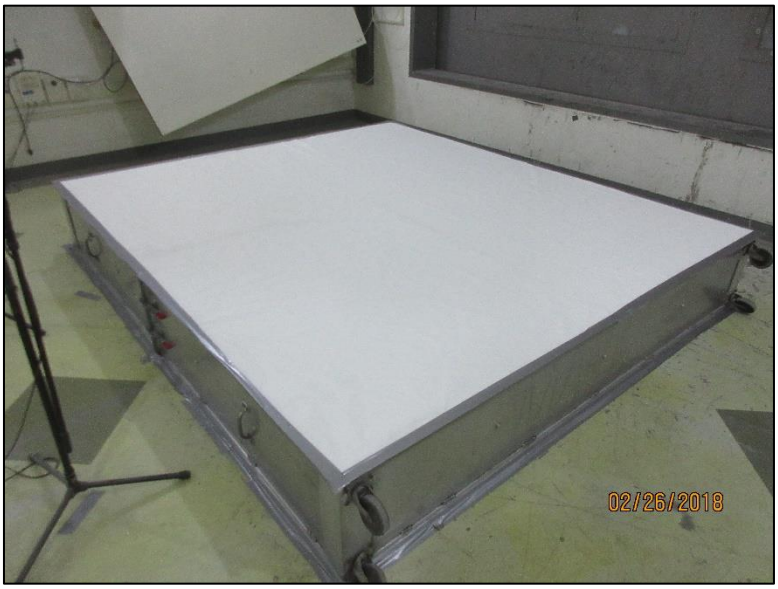

Photo No. 1
View of Installed Test Specimen

Photo No. 2
Cross Section View

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SECTION 12
REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	04/05/18	N/A	Original Report Issue