

Steelcase Acoustical Test Laboratory Report

TITLE:

REPORT No.: 0600267

**ACOUSTICAL STC TESTING PER ASTM E 90-02 OF PEACEMAKER
PRODUCT PROVIDED BY ONE WISH, LLC**

Prepared by: Chris De Man

Completion Date: 18May2006

Approved by: Jeff Musculus 25May06

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CLIENT

Mr. Mitchell Zlotnik
One Wish, LLC
34565 Seminole Way
Cleveland, OH 44139
Office: (800) 479-6334
Cell: (216) 695-4600

INTRODUCTION

Acoustical Sound Transmission Class (STC) testing was conducted on Peacemaker product supplied by One Wish, LLC.

CONCLUSIONS*

A summary of the test data is given below. Complete test data sheets are provided on pages 3 and 4 of this report. A photograph of the test sample is provided on page 5.

Summarization of Test Data

Test Number	Specimen Description	STC
051806c	Two (2) layers of Peacemaker material attached to a 4ft x 8ft wooden frame (layers separated by 2-inch thick wood frame)	18
051806d	One (1) layer of Peacemaker material attached to a 4ft x 8ft wooden frame	11

SPECIMEN DESCRIPTION AND CONDITION

The test requester described the samples as follows: Peacemaker – a dense rubber compound, bonded with a flexible polyurethane adhesive.

TEST PROCEDURE AND RESULTS

REFERENCE ELECTRONIC NOTEBOOK FILE: 0600267.XLS

Transmission Loss Testing

All measurements were taken within the Steelcase Acoustical Test Laboratory's transmission loss suite using a calibrated Bruel & Kjaer type 4165 microphone and a calibrated Bruel & Kjaer type 2133 Real-Time Frequency Analyzer.

Sound Transmission Class (STC) testing was conducted in accordance with the requirements of ASTM E 90-02, *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions* and ASTM E 413-87 (Reapproved 1999), *Classification for Rating Sound Insulation*.

The transmission loss test specimen(s) was sealed into the test opening with a reusable, dense mastic sealant.

LABORATORY DESCRIPTION AND QUALIFICATION INFORMATION

A complete description of the Steelcase Acoustical Test Laboratory, its measurement procedures, and documentation concerning reverberation room qualification procedures in accordance with ASTM C 423-01 and ASTM E 90-99 is available for review upon request. Also available is documentation concerning flanking limits and reference specimen tests.



STEELCASE ACOUSTICAL TEST LABORATORY REPORT

TEST REPORT NUMBER: 0600267
 DATE OF TEST: May 18, 2006
 TEST SPECIALIST: Walter Clawson
 TEST TYPE (ASTM Method): E90-02
 TEST NUMBER & REPORT FILE NAME: 051806c
 EMPTY/REC. ROOM ABSORPTION FILE NAME: 051806c
 DATA ACQUISITION SOFTWARE: Version 2.51, released June 2002

SPECIMEN DATA

MANUFACTURER: Steelcase, Inc.
 DESIGNATION: Peacemaker rubber
 DESCRIPTION: Peacemaker rubber composite mat by One Wish, LLC. Approx. 1/8" thick and is bonded by a flexible polyurethane adhesive. Two layers stapled to a 4' by 8' frame of 2" by 2" pine wood.
 DIMENSIONS: 48x96x2 inch
 WEIGHT [lbs]: 0
 AREA [SQ. Ft]: 32
 AVERAGE MASS PER UNIT AREA [lbs / SQ. Ft]:
 MOUNTING TYPE: TL
 SPECIMEN WAS ENVIRONMENTALLY PRECONDITIONED

TRANSMISSION LOSS DATA

FREQUENCY (Hz)	TRANSMISSION LOSS (dB)	UNCERTAINTY 95% CONFIDENCE (dB)	DEFICIENCIES dB<STC CONTOUR (dB)
100	12	0.48	0
125	11	1.78	0
160	11	0.14	0
200	10	0.63	0
250	12	0.13	0
315	12	0.22	2
400	13	0.08	4
500	14	0.08	4
630	15	0.02	4
800	16	0.03	4
1000	17	0.05	4
1250	18	0.12	4
1600	19	0.08	3
2000	21	0.08	1
2500	22	0.12	0
3150	23	0.13	0
4000	23	0.19	0
5000	24	0.26	0

STC = 18

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT



STEELCASE ACOUSTICAL TEST LABORATORY REPORT

TEST REPORT NUMBER: 0600267
 DATE OF TEST: May 18, 2006
 TEST SPECIALIST: Walter Clawson
 TEST TYPE (ASTM Method): E90-02
 TEST NUMBER & REPORT FILE NAME: 0518-6d
 EMPTY/REC. ROOM ABSORPTION FILE NAME: 051806d
 DATA ACQUISITION SOFTWARE: Version 2.51, released June 2002

SPECIMEN DATA

MANUFACTURER: Steelcase, Inc.
 DESIGNATION: Peacemaker rubber
 DESCRIPTION: Peacemaker rubber composite mat by One Wish, LLC. Approx. 1/8" thick and is bonded by a flexible polyurethane adhesive. One layer stapled to a 4' by 8' frame of 2" by 2" pine wood.
 DIMENSIONS: 48x96x2 inch
 WEIGHT [lbs]: 0
 AREA [SQ. Ft]: 32
 AVERAGE MASS PER UNIT AREA [lbs / SQ. Ft]:
 MOUNTING TYPE: TL
 SPECIMEN WAS ENVIRONMENTALLY PRECONDITIONED

TRANSMISSION LOSS DATA

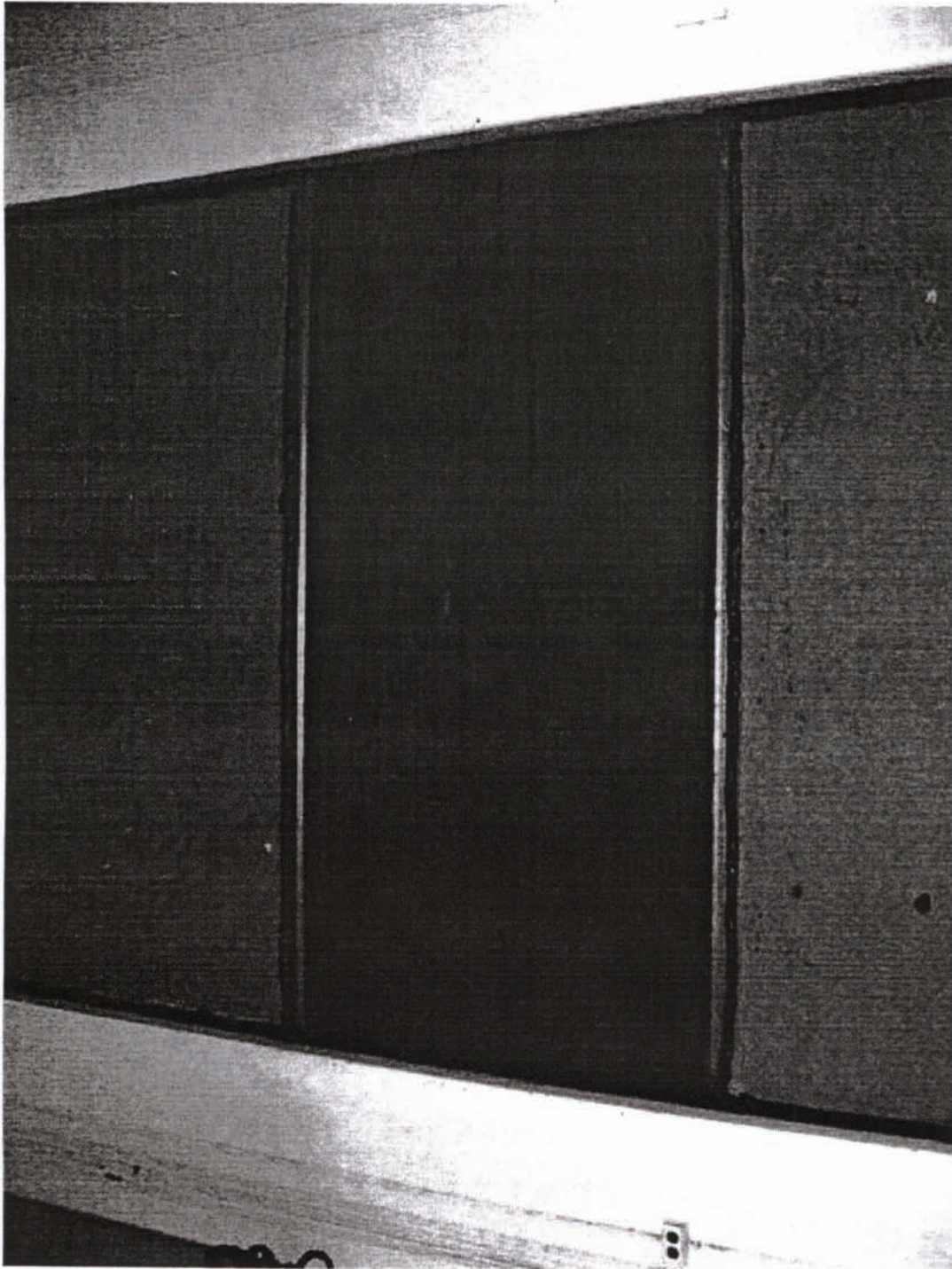
FREQUENCY (Hz)	TRANSMISSION LOSS (dB)	UNCERTAINTY 95% CONFIDENCE (dB)	DEFICIENCIES dB<STC CONTOUR (dB)
100	10	1.71	0
125	8	0.95	0
160	8	0.27	0
200	8	1.14	0
250	8	0.17	0
315	9	0.13	0
400	9	0.11	1
500	10	0.11	1
630	10	0.11	2
800	10	0.14	3
1000	11	0.02	3
1250	11	0.06	4
1600	12	0.04	3
2000	12	0.09	3
2500	13	0.09	2
3150	14	0.17	1
4000	14	0.23	1
5000	15	0.32	0

STC = 11

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT



Photograph of the test sample in the transmission loss test opening



Steelcase Product Development Test Lab Test Request

Lab Person: cdeman

Test Report: **0600267** Title: ACOUSTICAL STC TESTING PER ASTM E 90-02 OF PEACEMAKER PROVIDED BY ONE WISH, LLC

Requester: Chris DeMan Requested Due Date: 5/1/2006 Date Printed: 5/19/2006 8:27:20 AM
 Phone: 85527 Backup Person: Log Date: 4/4/2006
 Mail Code: CD.2W.06 Backup Person's Phone: Samples Received Date:
 CC to be Charged: G96490 CC Owner's Casemail ID: jmusculu CC Owner's Phone: 84685
 WBS Number: Gen. Run the Business Project Name: Non-Project related activities Studio/Plant: Prod. Dev. Services
 Project Manager Casemail ID (if applicable): Project Manager's Phone:

Phase: Concept Development Pilot Intro X LCM
 FEA Contact Name: PE/RE Contact Name:

Product to be Tested (chair, desk, file, etc.): foam underlayment

Total Number of Samples: 2 Have Samples Been Shipped?: Yes X No
 If Yes, Shipped on (date): Attention:

Please describe the test samples in detail, including model numbers, special features, design changes, etc. Material Tests - include vendor, material name and number, color, etc.

Peacemaker is a dense rubber compound, bonded with a flexible polyurethane adhesive

Material provided by One Wish, LLC. Test one layer and two layers attached to a 4x8 wooden frame provided by Steelcase.

Please be specific!

Purpose of Test
 Why is testing requested? What are you looking for? For a process or product change, please describe the change in detail:

Determine STC values of one and two layers of Peacemaker from One Wish LLC.

Requested Steelcase Eng. Specs or BIFMA:

Requested Testing ASTM E 90
 Describe SC Spec or Industry Standard testing or Project Test Plan in detail:

Is this request only for environmental testing?: Yes X No

Sample Disposition: X Scrap Ship To: At Location: Door:

Would you like to review the product before disassembly?: X Yes No

Do you pre-authorize overtime if needed?: Yes X No

Report Distribution: (Casemail IDs, or full name if no ID)

cdeman jmusculu

