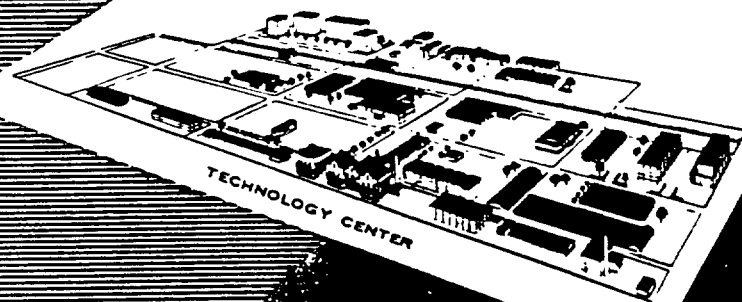


ARF

ARMOUR RESEARCH FOUNDATION OF ILLINOIS INSTITUTE OF TECHNOLOGY



TECHNOLOGY CENTER

RESTAURANT COMPANY

REPORT OF
SOUND DESCRIPTION TEST 158

RESEARCH FOR INDUSTRY

R4D 183

ARMOUR RESEARCH FOUNDATION
OF ILLINOIS INSTITUTE OF TECHNOLOGY
TECHNOLOGY CENTER, CHICAGO 16

ADDRESS REPLY TO
RIVERBANK ACOUSTICAL LABORATORIES
GENEVA, ILLINOIS

TELEPHONE
GENEVA 1104

February 11, 1958

Mr. C. G. Shuttleworth
Bestwall Gypsum Company
P.O. Box V
Paoli, Pennsylvania

Dear Mr. Shuttleworth:

Enclosed are results of sound absorption measurements made on your Bestwall Light Acoustical Plaster. Also enclosed is our invoice R 1769 to cover the cost of performing test A 58-4 for you.

We expect to test your other acoustical plaster the end of next week. We have enjoyed taking part in your test programs and look forward to serving you again in the future.

Very truly yours,

Ralph Huntley
Ralph Huntley, Supervisor
Riverbank Acoustical Laboratories

*1/10/58
not used
J.S.
g
x*

RM;amm
encl.

RECEIVED
PAOLI, PENNSYLVANIA

FEB 14 1958

BESTWALL GYPSUM
COMPANY

RESEARCH FOR INDUSTRY

SGP 0018762

REPORT OF
SOUND ABSORPTION TEST A 58-4
ON
BESTWALL LIGHT ACOUSTICAL PLASTER
FOR
BESTWALL GYPSUM COMPANY
January 10, 1958

INTRODUCTION

The method used in making these measurements meets the requirements of the American Society for Testing Materials' Proposed Method of Test for Sound Absorption of Acoustical Materials in Reverberation Rooms. A description of the measurements is given separately.

DESCRIPTION OF MATERIAL

<u>MATERIAL</u>	<u>THICKNESS</u>
Bestwall Light Acoustical Plaster	1/2" Bestwall Light Acoustical Plaster
	1/2" sanded Gypsum basecoat
	3/8" Gypsum lath
	3-3/4" air space

RESULTS OF TEST

<u>SURFACE</u>	<u>AREA TESTED</u>	<u>MOUNTING</u>	<u>COEFFICIENTS</u>						
			<u>125</u>	<u>250</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>4000</u>	<u>NBC</u>
Unpainted, textured.	72 sq.ft.	4	.10	.21	.25	.27	.35	.24	.25

Respectfully submitted,

Ralph Huntley
Ralph Huntley, Supervisor
RIVERBANK ACOUSTICAL LABORATORIES
ARMOUR RESEARCH FOUNDATION
Geneva, Illinois

Donald A. Zedonis
Donald A. Zedonis
Research Assistant

REPORT OF
SOUND ABSORPTION TEST A 58-4
ON
BESTWALL LIGHT ACOUSTICAL PLASTER
FOR
BESTWALL GYPSUM COMPANY
January 10, 1958

INTRODUCTION

The method used in making these measurements meets the requirements of the American Society for Testing Materials' Proposed Method of Test for Sound Absorption of Acoustical Materials in Reverberation Rooms. A description of the measurements is given separately.

DESCRIPTION OF MATERIAL

MATERIAL

Bestwall Light Acoustical Plaster

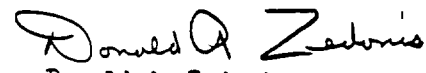
THICKNESS

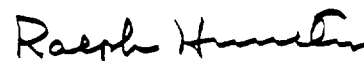
1/2" Bestwall Light Acoustical Plaster
1/2" sanded Gypsum basecoat
3/8" Gypsum lath
3-3/4" air space

RESULTS OF TEST

<u>SURFACE</u>	<u>AREA TESTED</u>	<u>MOUNTING</u>	<u>COEFFICIENTS</u>						
			<u>125</u>	<u>250</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>4000</u>	<u>NBC</u>
Unpainted, textured.	72 sq.ft.	4	.10	.21	.25	.27	.35	.24	.25

Respectfully submitted,


Donald A. Zedonis
Research Assistant


Ralph Huntley, Supervisor
RIVERBANK ACOUSTICAL LABORATORIES
ARMOUR RESEARCH FOUNDATION
Geneva, Illinois

REPORT OF
SOUND ABSORPTION TEST A 58-4
ON
BESTWALL LIGHT ACOUSTICAL PLASTER
FOR
BESTWALL GYPSUM COMPANY
January 10, 1958

INTRODUCTION

The method used in making these measurements meets the requirements of the American Society for Testing Materials' Proposed Method of Test for Sound Absorption of Acoustical Materials in Reverberation Rooms. A description of the measurements is given separately.

DESCRIPTION OF MATERIAL

MATERIAL

Bestwall Light Acoustical Plaster

THICKNESS

1/2" Bestwall Light Acoustical Plaster
1/2" sanded Gypsum basecoat
3/8" Gypsum lath
3-3/4" air space

RESULTS OF TEST

<u>SURFACE</u>	<u>AREA TESTED</u>	<u>MOUNTING</u>	<u>COEFFICIENTS</u>						
			<u>125</u>	<u>250</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>4000</u>	<u>NRC</u>
Unpainted, textured.	72 sq.ft.	4	.10	.21	.25	.27	.35	.24	.25

Respectfully submitted,

Ralph Huntley
Ralph Huntley, Supervisor
RIVERBANK ACOUSTICAL LABORATORIES
ARMOUR RESEARCH FOUNDATION
Geneva, Illinois

Donald A. Zedonis
Donald A. Zedonis
Research Assistant

REPORT OF
SOUND ABSORPTION TEST A 58-4
ON
BESTWALL LIGHT ACOUSTICAL PLASTER
FOR
BESTWALL GYPSUM COMPANY
January 10, 1958

INTRODUCTION

The method used in making these measurements meets the requirements of the American Society for Testing Materials' Proposed Method of Test for Sound Absorption of Acoustical Materials in Reverberation Rooms. A description of the measurements is given separately.

DESCRIPTION OF MATERIAL

MATERIAL

Bestwall Light Acoustical Plaster

THICKNESS

1/2" Bestwall Light Acoustical Plaster
1/2" sanded Gypsum basecoat
3/8" Gypsum lath
3-3/4" air space

RESULTS OF TEST

<u>SURFACE</u>	<u>AREA TESTED</u>	<u>MOUNTING</u>	<u>COEFFICIENTS</u>						
			<u>125</u>	<u>250</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>4000</u>	<u>NBC</u>
Unpainted, textured.	72 sq.ft.	4	.10	.21	.25	.27	.35	.24	.25

Respectfully submitted,

Ralph Huntley
Ralph Huntley, Supervisor
RIVERBANK ACOUSTICAL LABORATORIES
ARMOUR RESEARCH FOUNDATION
Geneva, Illinois

Donald A. Zedonis
Donald A. Zedonis
Research Assistant

REPORT OF
SOUND ABSORPTION TEST A 58-4
ON
BESTWALL LIGHT ACOUSTICAL PLASTER
FOR
BESTWALL GYPSUM COMPANY
January 10, 1958

INTRODUCTION

The method used in making these measurements meets the requirements of the American Society for Testing Materials' Proposed Method of Test for Sound Absorption of Acoustical Materials in Reverberation Rooms. A description of the measurements is given separately.

DESCRIPTION OF MATERIAL

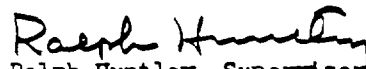
<u>MATERIAL</u>	<u>THICKNESS</u>
Bestwall Light Acoustical Plaster	1/2" Bestwall Light Acoustical Plaster
	1/2" sanded Gypsum basecoat
	3/8" Gypsum lath
	3-3/4" air space

RESULTS OF TEST

<u>SURFACE</u>	<u>AREA TESTED</u>	<u>MOUNTING</u>	<u>COEFFICIENTS</u>						
			<u>125</u>	<u>250</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>4000</u>	<u>NBC</u>
Unpainted, textured.	72 sq.ft.	4	.10	.21	.25	.27	.35	.24	.25

Respectfully submitted,


Donald A. Zedonis
Research Assistant


Ralph Huntley, Supervisor
RIVERBANK ACOUSTICAL LABORATORIES
ARMOUR RESEARCH FOUNDATION
Geneva, Illinois

REPORT OF
SOUND ABSORPTION TEST A 58-4
ON
BESTWALL LIGHT ACOUSTICAL PLASTER
FOR
BESTWALL GYPSUM COMPANY
January 10, 1958

INTRODUCTION

The method used in making these measurements meets the requirements of the American Society for Testing Materials' Proposed Method of Test for Sound Absorption of Acoustical Materials in Reverberation Rooms. A description of the measurements is given separately.

DESCRIPTION OF MATERIAL

MATERIAL

Bestwall Light Acoustical Plaster

THICKNESS

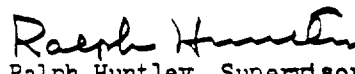
1/2" Bestwall Light Acoustical Plaster
1/2" sanded Gypsum basecoat
3/8" Gypsum lath
3-3/4" air space

RESULTS OF TEST

<u>SURFACE</u>	<u>AREA TESTED</u>	<u>MOUNTING</u>	<u>COEFFICIENTS</u>						
			<u>125</u>	<u>250</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>4000</u>	<u>NBC</u>
Unpainted, textured.	72 sq.ft.	4	.10	.21	.25	.27	.35	.24	.25

Respectfully submitted,


Donald A. Zedonis
Research Assistant


Ralph Huntley, Supervisor
RIVERBANK ACOUSTICAL LABORATORIES
ARMOUR RESEARCH FOUNDATION
Geneva, Illinois

ARMOUR RESEARCH FOUNDATION OF ILLINOIS INSTITUTE OF TECHNOLOGY

SGP 0018768

Armour Research Foundation of Illinois Institute of Technology was founded some twenty years ago to meet the increasing need for contract research services. In the two decades that have followed the Foundation has conducted more than 3,000 research programs for industrial companies, trade associations, and government agencies.

Today, Armour Research Foundation is one of the largest independent research organizations in the world, having an annual research volume in excess of \$12,000,000.

The Foundation's 1250-man staff carries on basic and applied research in practically all of the physical sciences and engineering. The research is conducted under what is known as "The Armour Plan"--the focusing of diversified talents on a project.

The Foundation has nine research departments. Additional information about their activities can be obtained by contacting the Director of Armour Research Foundation.

ARMOUR RESEARCH FOUNDATION
of ILLINOIS INSTITUTE of TECHNOLOGY
TECHNOLOGY CENTER
CHICAGO 16, ILL.
CA lomet 5-9600

REPORT OF
SOUND ABSORPTION TEST A 58-4
ON
BESTWALL LIGHT ACOUSTICAL PLASTER
FOR
BESTWALL GYPSUM COMPANY
January 10, 1958

submitted by
Riverbank Acoustical Laboratories
Geneva, Illinois

ARMOUR RESEARCH FOUNDATION OF ILLINOIS INSTITUTE OF TECHNOLOGY

SGP 0018770

REPORT OF
SOUND ABSORPTION TEST A 58-4
ON
BESTWALL LIGHT ACOUSTICAL PLASTER
FOR
BESTWALL GYPSUM COMPANY
January 10, 1958

INTRODUCTION

The method used in making these measurements meets the requirements of the American Society for Testing Materials' Proposed Method of Test for Sound Absorption of Acoustical Materials in Reverberation Rooms. A description of the measurements is given separately.

DESCRIPTION OF MATERIAL

MATERIAL

Bestwall Light Acoustical Plaster

THICKNESS

1/2" Bestwall Light Acoustical Plaster
1/2" sanded Gypsum basecoat
3/8" Gypsum lath
3-3/4" air space

RESULTS OF TEST

<u>SURFACE</u>	<u>AREA TESTED</u>	<u>MOUNTING</u>	<u>COEFFICIENTS</u>						
			<u>125</u>	<u>250</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>4000</u>	<u>NBC</u>
Unpainted, textured.	72 sq.ft.	4	.10	.21	.25	.27	.35	.24	.25

Respectfully submitted,

Ralph Huntley
Ralph Huntley, Supervisor
RIVERBANK ACOUSTICAL LABORATORIES
ARMOUR RESEARCH FOUNDATION
Geneva, Illinois

Donald A. Zedonis
Donald A. Zedonis
Research Assistant

ARMOUR RESEARCH FOUNDATION OF ILLINOIS INSTITUTE OF TECHNOLOGY

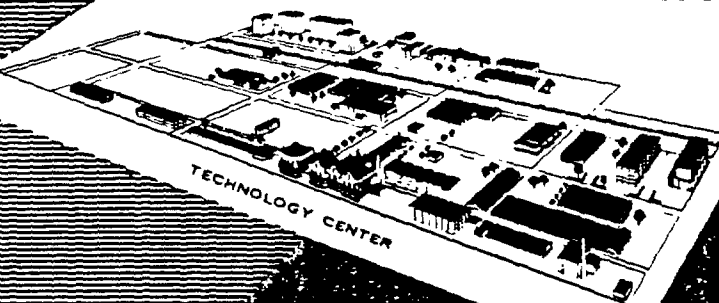
SGP 0018771

7-2183

The Armour Research Foundation of Illinois Institute of Technology

ARF

ARMOUR RESEARCH FOUNDATION OF ILLINOIS INSTITUTE OF TECHNOLOGY



TECHNOLOGY CENTER

SAATCHI & SAATCHI COMPANY

REPORT OF
SOUND ABSORPTION TESTS 58-112

RESEARCH FOR INDUSTRY

SGP 0018772

Armour Research Foundation of Illinois Institute of Technology was founded some twenty years ago to meet the increasing need for contract research services. In the two decades that have followed the Foundation has conducted more than 3,000 research programs for industrial companies, trade associations, and government agencies.

Today, Armour Research Foundation is one of the largest independent research organizations in the world, having an annual research volume in excess of \$12,000,000.

The Foundation's 1250-man staff carries on basic and applied research in practically all of the physical sciences and engineering. The research is conducted under what is known as "The Armour Plan"--the focusing of diversified talents on a project.

The Foundation has nine research departments. Additional information about their activities can be obtained by contacting the Director of Armour Research Foundation.

ARMOUR RESEARCH FOUNDATION
of ILLINOIS INSTITUTE of TECHNOLOGY
TECHNOLOGY CENTER
CHICAGO 16, ILL.
CALumet 5-9600

SGP 0018773

REPORT OF
SOUND ABSORPTION TEST A 58-42
ON
BESTWALL LIGHT ACOUSTICAL PLASTER
FOR
BESTWALL GYPSUM COMPANY
February 18, 1958

submitted by
Riverbank Acoustical Laboratories
Geneva, Illinois

ARMOUR RESEARCH FOUNDATION OF ILLINOIS INSTITUTE OF TECHNOLOGY

SGP 0018774

REPORT OF
SOUND ABSORPTION TEST A 58-42
ON
BESTWALL LIGHT ACOUSTICAL PLASTER
FOR
BESTWALL GYPSUM COMPANY
February 18, 1958

INTRODUCTION

The method used in making these measurements meets the requirements of the American Society for Testing Materials' Proposed Method of Test For Sound Absorption of Acoustical Materials in Reverberation Rooms. A description of the measurements is given separately.

DESCRIPTION OF MATERIAL

MATERIAL

THICKNESS

Bestwall Light Acoustical Plaster 1/2" Nominal thickness
Bestwall Light Acoustical Plaster
Machine applied

1/2" sanded Gypsum basecoat

3/8" Gypsum lath

3-3/4" air space

RESULTS OF TEST

<u>SURFACE</u>	<u>AREA TESTED</u>	<u>MOUNTING</u>	<u>COEFFICIENTS</u>						
			<u>125</u>	<u>250</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>4000</u>	<u>NRC</u>
Unpainted, textured	72 sq.ft.	4	.25	.27	.52	.69	.78	.88	.55

Respectfully submitted,

Ralph Huntley
Ralph Huntley, Supervisor
RIVERBANK ACOUSTICAL LABORATORIES
ARMOUR RESEARCH FOUNDATION
Geneva, Illinois

Donald A. Zedonis
Donald A. Zedonis
Research Assistant

ARMOUR RESEARCH FOUNDATION OF ILLINOIS INSTITUTE OF TECHNOLOGY

SGP 0018775

REPORT OF
SOUND ABSORPTION TEST A 58-42
ON
BESTWALL LIGHT ACOUSTICAL PLASTER
FOR
BESTWALL GYPSUM COMPANY
February 18, 1958

INTRODUCTION

The method used in making these measurements meets the requirements of the American Society for Testing Materials' Proposed Method of Test For Sound Absorption of Acoustical Materials in Reverberation Rooms. A description of the measurements is given separately.

DESCRIPTION OF MATERIAL

MATERIAL

THICKNESS

Bestwall Light Acoustical Plaster 1/2" Nominal thickness
Bestwall Light Acoustical Plaster
Machine applied

1/2" sanded Gypsum basecoat

3/8" Gypsum lath

3-3/4" air space

RESULTS OF TEST

<u>SURFACE</u>	<u>AREA TESTED</u>	<u>MOUNTING</u>	<u>COEFFICIENTS</u>							
			<u>125</u>	<u>250</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>4000</u>	<u>NRC</u>	
Unpainted, textured	72 sq.ft.	4	.25	.27	.52	.69	.78	.88	.55	(.565) C.B.

Respectfully submitted,

Ralph Huntley
Ralph Huntley, Supervisor
RIVERBANK ACOUSTICAL LABORATORIES
ARMOUR RESEARCH FOUNDATION
Geneva, Illinois

Donald A. Zedonis
Donald A. Zedonis
Research Assistant

ARMOUR RESEARCH FOUNDATION OF ILLINOIS INSTITUTE OF TECHNOLOGY

SGP 0018776

REPORT OF
SOUND ABSORPTION TEST A 58-42
ON
BESTWALL LIGHT ACOUSTICAL PLASTER
FOR
BESTWALL GYPSUM COMPANY
February 18, 1958

INTRODUCTION

The method used in making these measurements meets the requirements of the American Society for Testing Materials' Proposed Method of Test For Sound Absorption of Acoustical Materials in Reverberation Rooms. A description of the measurements is given separately.

DESCRIPTION OF MATERIAL

MATERIAL

THICKNESS

Bestwall Light Acoustical Plaster 1/2" Nominal thickness
Bestwall Light Acoustical Plaster
Machine applied

1/2" sanded Gypsum basecoat

3/8" Gypsum lath

3-3/4" air space

RESULTS OF TEST

<u>SURFACE</u>	<u>AREA TESTED</u>	<u>MOUNTING</u>	<u>COEFFICIENTS</u>							
			<u>125</u>	<u>250</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>4000</u>	<u>NRC</u>	
Unpainted, textured	72 sq.ft.	4	.25	.27	.52	.69	.78	.88	.55	(.565)

Respectfully submitted,

Ralph Huntley
Ralph Huntley, Supervisor
RIVERBANK ACOUSTICAL LABORATORIES
ARMOUR RESEARCH FOUNDATION
Geneva, Illinois

Donald A. Zedonis
Donald A. Zedonis
Research Assistant

REPORT OF
SOUND ABSORPTION TEST A 58-42
ON
BESTWALL LIGHT ACOUSTICAL PLASTER
FOR
BESTWALL GYPSUM COMPANY
February 18, 1958

INTRODUCTION

The method used in making these measurements meets the requirements of the American Society for Testing Materials' Proposed Method of Test For Sound Absorption of Acoustical Materials in Reverberation Rooms. A description of the measurements is given separately.

DESCRIPTION OF MATERIAL

<u>MATERIAL</u>	<u>THICKNESS</u>
Bestwall Light Acoustical Plaster	1/2" Nominal thickness Bestwall Light Acoustical Plaster Machine applied
	1/2" sanded Gypsum basecoat
	3/8" Gypsum lath
	3-3/4" air space

RESULTS OF TEST

<u>SURFACE</u>	<u>AREA TESTED</u>	<u>MOUNTING</u>	<u>COEFFICIENTS</u>							<u>NRC</u>
			<u>125</u>	<u>250</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>4000</u>		
Unpainted, textured	72 sq.ft.	4	.25	.27	.52	.69	.78	.88	.55	(.565)

Respectfully submitted,

Ralph Huntley
Ralph Huntley, Supervisor
RIVERBANK ACOUSTICAL LABORATORIES
ARMOUR RESEARCH FOUNDATION
Geneva, Illinois

Donald A. Zedonis
Donald A. Zedonis
Research Assistant

REPORT OF
SOUND ABSORPTION TEST A 58-42
ON
BESTWALL LIGHT ACOUSTICAL PLASTER
FOR
BESTWALL GYPSUM COMPANY
February 18, 1958

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DESCRIPTION OF MATERIAL

<u>MATERIAL</u>	<u>THICKNESS</u>
Bestwall Light Acoustical Plaster	1/2" Nominal thickness Bestwall Light Acoustical Plaster Machine applied
	1/2" sanded Gypsum basecoat
	3/8" Gypsum lath
	3-3/4" air space

RESULTS OF TEST

<u>SURFACE</u>	<u>AREA TESTED</u>	<u>MOUNTING</u>	<u>COEFFICIENTS</u>						
			<u>125</u>	<u>250</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>4000</u>	<u>NRC</u>
Unpainted, textured	72 sq.ft.	4	.25	.27	.52	.69	.78	.88	.55

Respectfully submitted,

Ralph Huntley
Ralph Huntley, Supervisor
RIVERBANK ACOUSTICAL LABORATORIES
ARMOUR RESEARCH FOUNDATION
Geneva, Illinois

Donald A. Zedonis
Donald A. Zedonis
Research Assistant

ARMOUR RESEARCH FOUNDATION OF ILLINOIS INSTITUTE OF TECHNOLOGY

SGP 0018779