



# The more you install, the more you save.

## Electrical contractors wiring multi-family buildings save the most.

Forget putty pads. Forget mineral wool. Forget about being limited to a single electrical box in a stud cavity. Unlike their metal or PVC counterparts, Allied Moulded FiberglassBOX™ wall boxes can be placed a mere **three inches apart\*** — with no additional fire protection — and still meet the fire safety standards outlined in the International Building Code. They're also suitable for use in STC rated common walls without additional sound pads. Testing has shown STC rated common walls are not negatively impacted with Allied Moulded FiberglassBOX™ products installed.

What does that mean for you? More flexibility in electrical design. Easier standardization in multi-family construction. Lower material and labor costs. And the benefits keep stacking up with every Allied Moulded FiberglassBOX™ box you use.

We've packed some big savings into a very small space. To learn more and see our UL documentation, visit [www.alliedmoulded.com](http://www.alliedmoulded.com).



fiberglassBOX™  
From Allied Moulded Products 

222 North Union Street (419) 636.4217  
Bryan, Ohio 43506 (419) 636.2450 FAX



ALLIED  
MOULDED  
PRODUCTS, Inc.

\*Suitable for installation in 2HR wall assemblies: All 52 – U300 series walls, non-load bearing steel stud walls and staggered stud wall assemblies



Jan. 30, 2015

The Fiberglass outlet boxes from Allied Moulded Products are now acoustically rated to maintain the sound rating of a wall up to a Sound Transmission Class (STC) 50 without sound pads or ancillary sound protection.

This rating was achieved by performing the ASTM E-90 Sound Transmission Loss Test on Allied's 2-gang (2302) Fiberglass outlet boxes installed in a 50 STC rated wall. The outlet boxes were installed in the standard manner on opposite sides of a common wall within the same stud cavity.

STC rated walls and partitions are required by most Building Codes for separating dwelling units from each other or from public or service areas. The 2012 International Building Code (IBC) requires these walls and partitions to have a STC rating of not less than 50 when tested in accordance with ASTM E-90.

Included with this announcement is the test report from NGC Testing Services describing the installation and performance of Allied's Fiberglass 2302. Due to the complexity of this construction, it is recommended that this report be provided to the project architect or acoustical engineer for proper evaluation.

If there any questions regarding this rating or the testing performed on the boxes, please do not hesitate to contact Greg Franklin or myself at Allied Moulded Products.

Regards,

Brad Rupp  
Manager of Technical Operations  
Allied Moulded Products  
222 North Union St  
Bryan, Ohio 43506



# Acoustical Testing Laboratory



Accredited by the National Voluntary  
Laboratory Accreditation Program  
for the specific scope of accreditation  
under Lab Code 200291

## TEST REPORT

For

Allied Moulded Products  
222 N. Union Street  
Bryan, OH 43506  
Lawrence Schmidt / 419-636-4217

**Sound Transmission Loss Test**  
ASTM E 90 – 09 / E 413 – 04 / E 1332 – 10a  
On

**Vertically Mounted -  
Double Layer of 5/8 Inch Type C Gypsum Wallboard - Side 1  
Double Layer of 5/8 Inch Type C Gypsum Wallboard - Side 2  
On 3-5/8 Inch (24 Inch o.c.) Metal Studs and Mineral Wool Batt Insulation  
Two Double-Gang Fiberglass Outlet Boxes,  
One in Each Room, Same Stud Cavity, Foam Seal**

Report Number: NGC 2011054


Page 1 of 4  
Report Reissued on 06/01/2012

Assignment Number: G-681

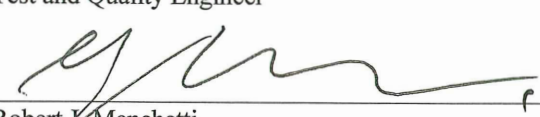
Test Date: 11/10/2011

Report Date: 01/27/2012

Submitted by: \_\_\_\_\_

  
Andrew E. Heuer  
Test and Quality Engineer

Reviewed by: \_\_\_\_\_

  
Robert J. Menchetti  
Director

The results reported above apply to specific samples submitted for measurement.  
No responsibility is assumed for performance of any other specimen.  
This report may not be reproduced except in full, without the written approval of the laboratory.  
The laboratory's accreditation or any of its test reports in no way constitutes or implies product certification, approval,  
or endorsement by NVLAP or any agency of the U.S. Government.



**Test Method:** This test method conforms explicitly with the American Society for Testing and Materials Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements - Designation: E 90 - 09 / E 413 - 10.

**Specimen Description:** The test specimen was a partition assembly constructed within the 12 ft. Wide by 9 ft. High (3657mm W by 2743mm H) test opening. The test specimen was described by client as, 3-5/8 inch metal stud framing 24 inches on center. 2 layers of 5/8 inch Type C gypsum board mounted on Side 1 (Source Room) and 2 layers of 5/8 inch Type C gypsum board on Side 2 (Receiving Room). Mineral wool insulation was placed into the cavities formed by the framing members. Double-gang Fiberglass outlets were installed, identified by client as Double-gang box. Outlets located on adjacent studs, common cavity. Spray foam used to seal boxes.

Standard direction of sound from Source Room (Room 1) to Receiving Room (Room 2).

The wall system was constructed in the test opening and consisted of:  
From Room 1 to Room 2.

- 2 layers of 15.9mm (5/8 in.) Type C gypsum wallboard. Sample weight was 25.4 kg/m<sup>2</sup> (5.2 PSF) mounted vertically and attached directly to the steel framing members. Base layer screw spacing was 609.6mm (24 in.) o.c., using 25.4mm (1 in.) fine thread bugle head screws. The face layer screw spacing was 304.8mm (12 in.) o.c., using 41.3mm (1-5/8 in.) fine thread bugle head screws.
  - Double-gang Fiberglass outlet box was installed and sealed with spray foam.
  - 92.1mm (3-5/8 in.) wide by 31.8mm (1-1/4 in.) deep 25 ga., metal studs mounted vertically 609.6mm (24 in.) o.c. between the top and bottom tracks. Sample weight was 1.12 kg/m<sup>2</sup> (0.23 PSF).
  - 92.1mm (3-5/8 in.) 25 ga. metal track top and bottom. Sample weight was 0.39 kg/m<sup>2</sup> (0.08 PSF). A bead of acoustical caulk was placed between metal track and test frame opening.
  - 1 layer of 76.2mm (3 in.) mineral wool insulation was friction fit into stud cavities. The sample weight was found to be 3.52 kg/m<sup>2</sup> (0.72 PSF).
  - 2 layers of 15.9mm (5/8 in.) Type C gypsum wallboard. Sample weight was 25.4 kg/m<sup>2</sup> (5.2 PSF) mounted vertically and attached directly to the steel framing members. Base layer screw spacing was 609.6mm (24 in.) o.c., using 25.4mm (1 in.) fine thread bugle head screws. The face layer screw spacing was 304.8mm (12 in.) o.c., using 41.3mm (1-5/8 in.) fine thread bugle head screws.
  - Double-gang Fiberglass outlet box was installed and sealed with spray foam.
- Total weight of the wall system was 3.52 kg/m<sup>2</sup> (11.43 PSF)

The perimeter of the wall system was sealed with acoustical caulk and exposed board joints were taped.

**Specimen size:** 3657.6mm x 2743.2mm (12 ft x 9 ft.)

**Conditioning:** Test components were tested as received.

**Test Results:** The results of the tests are given on pages 3 and 4.

The results reported above apply to specific samples submitted for measurement. No responsibility is assumed for performance of any other specimen.

This report may not be reproduced except in full, without the written approval of the laboratory.

The laboratory's accreditation or any of its test reports in no way constitutes or implies product certification, approval, or endorsement by NVLAP or any agency of the U.S. Government.



# Acoustical Testing Laboratory



Accredited by the National Voluntary Laboratory Accreditation Program for the specific scope of accreditation under Lab Code 200291

Sound Transmission Loss Test Data							
Test: ASTM E 90 - 09 / ASTM E 413 - 10							
Test Report: NGC2011054						Date: 11/10/2011	
Specimen Size [m <sup>2</sup> ]: 10.1						Page 3 of 4	
<b>Source room</b>				<b>Receiving room</b>			
Volume [m <sup>3</sup> ]: 91.2				Volume [m <sup>3</sup> ]: 98.6			
Rm Temp [°C]: 19.5				Rm Temp [°C]: 20			
Humidity [%]: 50				Humidity [%]: 50			
<b>Sound Transmission Class STC [dB]:</b>				<b>54</b>			
Sum of Unfavorable Deviations [dB]: 18							
Max. Unfavorable Deviation [dB]: 8				at 2000 Hz			
Frequency [Hz]	STL [dB]	L1 [dB]	L2 [dB]	d [dB/s]	Corr. [dB]	u.Dev. [dB]	ΔSTL
100	36	105.8	73.5	17.3	3.7		0.0
125	42	104.2	66.6	14.0	4.4		1.8
160	43	102.6	65.4	11.2	5.8		2.0
200	46	102.4	61.6	11.2	5.2		1.1
250	50	100.6	56.3	11.7	5.7		1.0
315	53	100.4	53.5	11.4	6.1		0.6
400	56	100.4	49.1	12.8	4.7		0.5
500	58	102.5	49.3	12.2	4.8		0.2
630	59	103.0	49.5	11.9	5.5		0.1
800	61	101.6	45.6	12.9	5.0		0.1
1000	62	102.0	44.6	13.6	4.6		0.1
1250	63	100.0	41.0	15.0	4.0		0.0
1600	61	97.1	39.8	17.6	3.7		0.1
2000	50	96.6	49.0	21.1	2.4	8	0.1
2500	51	96.9	47.5	24.4	1.6	7	0.0
3150	55	95.5	41.8	26.4	1.3	3	0.0
4000	59	94.2	36.0	30.0	0.8		0.0
5000	62	93.1	31.1	34.6	0.0		0.0

STL = Sound Transmission Loss, dB  
L1 = Source Room Level, dB  
L2 = Receiving Room Level, dB  
d = Decay Time, dB/second  
Δ STL = Uncertainty for 95% Confidence Level

The results reported above apply to specific samples submitted for measurement. No responsibility is assumed for performance of any other specimen. This report may not be reproduced except in full, without the written approval of the laboratory. The laboratory's accreditation or any of its test reports in no way constitutes or implies product certification, approval, or endorsement by NVLAP or any agency of the U.S. Government.



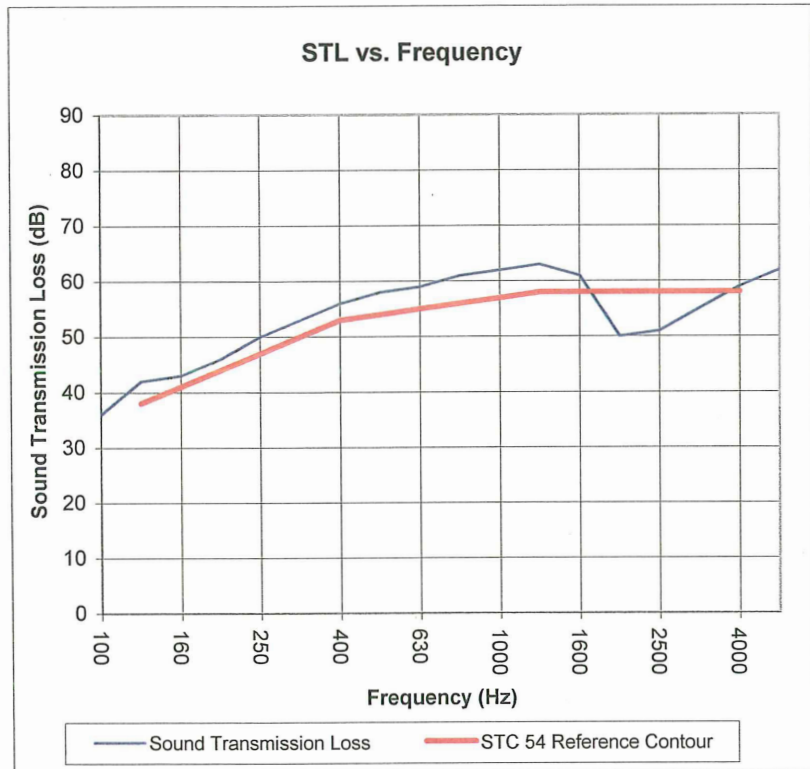
## Sound Transmission Loss Test Data

Per: ASTM E 90 - 09 / ASTM E 413 - 10

Test Report: NGC2011054  
 Test Date: 11/10/2011  
 Specimen Size [m<sup>2</sup>]: 10.1

**Sound Transmission Class STC = 54 dB**

Frequency [Hz]	STL [dB]	ΔSTL
100	36	2.0
125	42	1.1
160	43	1.0
200	46	0.6
250	50	0.5
315	53	0.2
400	56	0.1
500	58	0.1
630	59	0.1
800	61	0.0
1000	62	0.1
1250	63	0.1
1600	61	0.0
2000	50	0.0
2500	51	0.0
3150	55	0.0
4000	59	0.0
5000	62	0.0



\* Due to high insulating value of specimen, background levels limit results at these frequencies.

STL = Sound Transmission Loss, dB  
 Δ STL = Uncertainty for 95% Confidence Level

The results reported above apply to specific samples submitted for measurement. No responsibility is assumed for performance of any other specimen. This report may not be reproduced except in full, without the written approval of the laboratory. The laboratory's accreditation or any of its test reports in no way constitutes or implies product certification, approval, or endorsement by NVLAP or any agency of the U.S. Government.