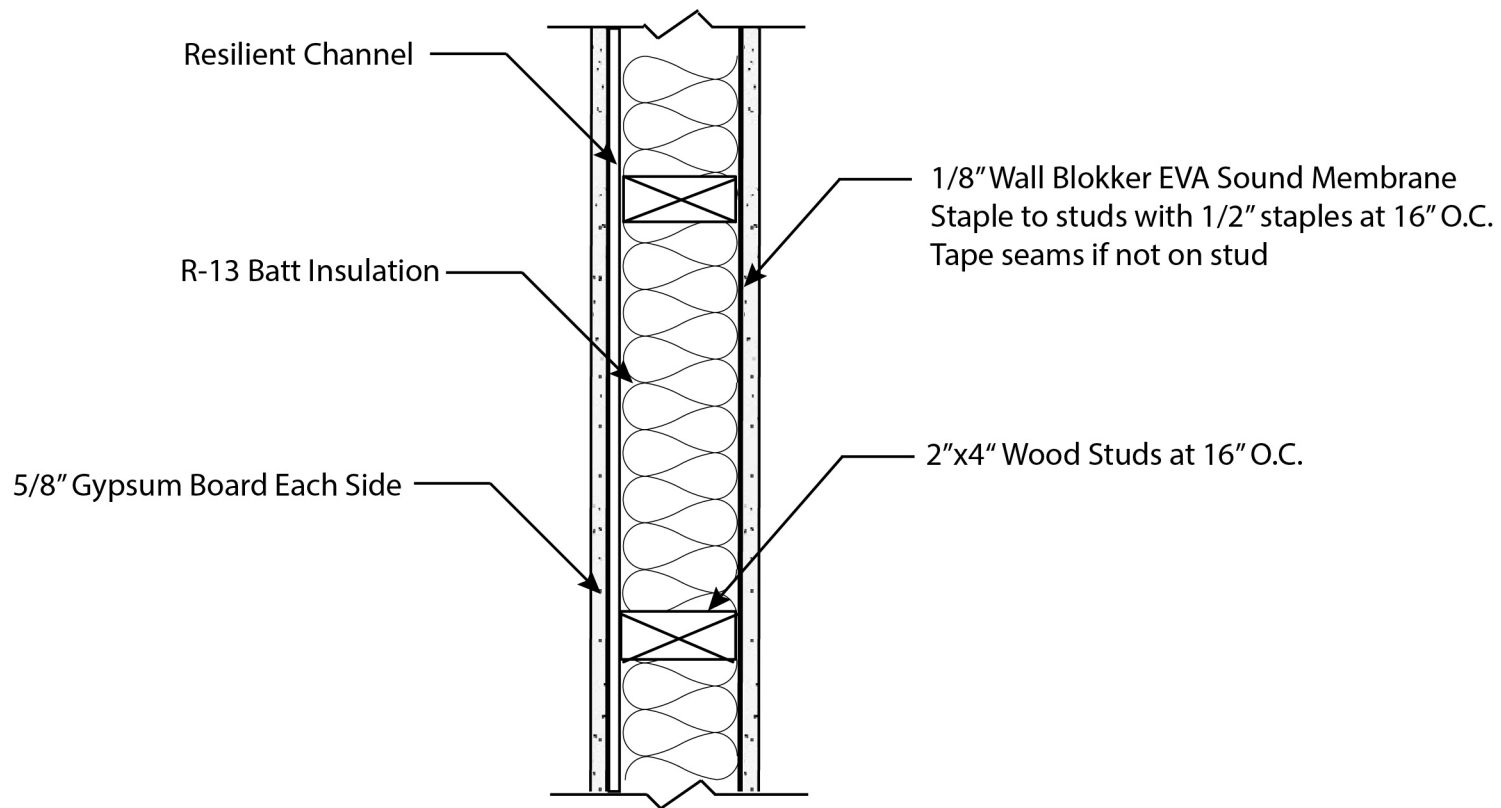


# Partition Type CA 3



Partition	Stud Size	Fire Rating	UL	STC Rating	STC Test	Partition Thickness
CA 3-1	3-1/2"	1 hr	UL U305	STC 55	INSUL v.9.0.8	5-3/8"
CA 3-2	5-1/2"	1hr	UL U305	STC 56	INSUL v.8.0.12	7-3/8"

# Sound Insulation Prediction (v9.0.8)

Program copyright Marshall Day Acoustics 2017

margin of error is generally within STC +/- 3 dB

- Key No. 4851

Job Name:

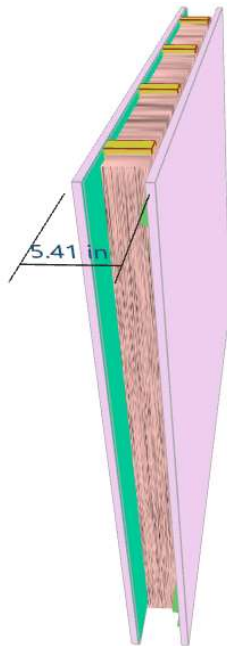
Job No.:

Date: 7/13/2018

File Name:

Initials: Marcel

Notes:



STC 55  
OITC 36

Mass-air-mass resonant frequency = 60 Hz

Panel Size = 8.9 ft x 13.1 ft

Partition surface mass = 6.68 lb/ft<sup>2</sup>

## System description

Panel 1 : 1 x 0.63 in Type X Gypsum Board

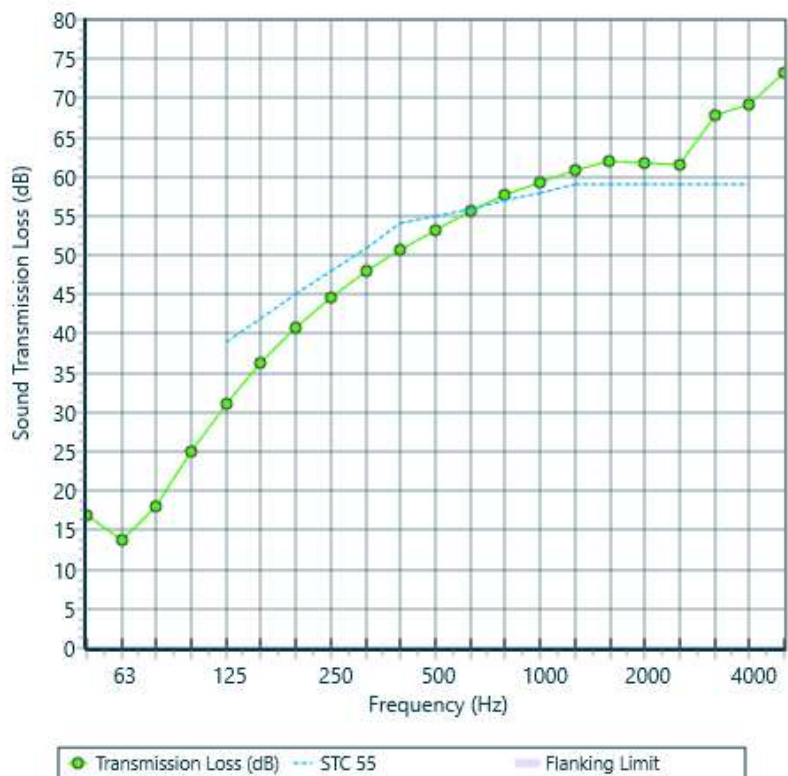
+ 1 x 0.13 in Wall Blocker

Frame: Timber stud + Resilient rail/bar; Cavity Width 4.02 in, Stud spacing 16 in, 1 x fiberglass (1.4 lb/ft<sup>3</sup>) Thickness 3.5 in

Panel 2 + 1 x 0.63 in Type X Gypsum Board

Floor Cover: Thickness 0.02 in

freq.(Hz)	TL(dB)	TL(dB)
50	17	
63	14	16
80	18	
100	25	
125	31	29
160	36	
200	41	
250	45	44
315	48	
400	51	
500	53	53
630	56	
800	58	
1000	59	59
1250	61	
1600	62	
2000	62	62
2500	62	
3150	68	
4000	69	70
5000	73	



# Sound Insulation Prediction (v8.0.12)

Program copyright Marshall Day Acoustics 2015



- Key No. 4851

Margin of error is generally within STC +/- 3 dB

Job Name:

Notes:

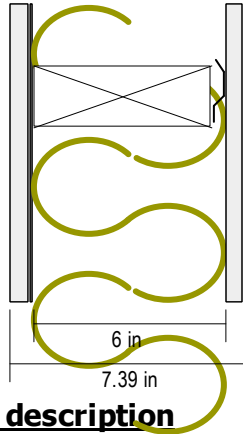
Job No.:

Page No.:

Date: 14 Aug 17

Initials: Walker

File Name: insul



STC 56

OITC 39

## System description

Panel 1 : 1 x 0.63 in Type X Gypsum Board

+ 1 x 0.13 in Wall Blokker

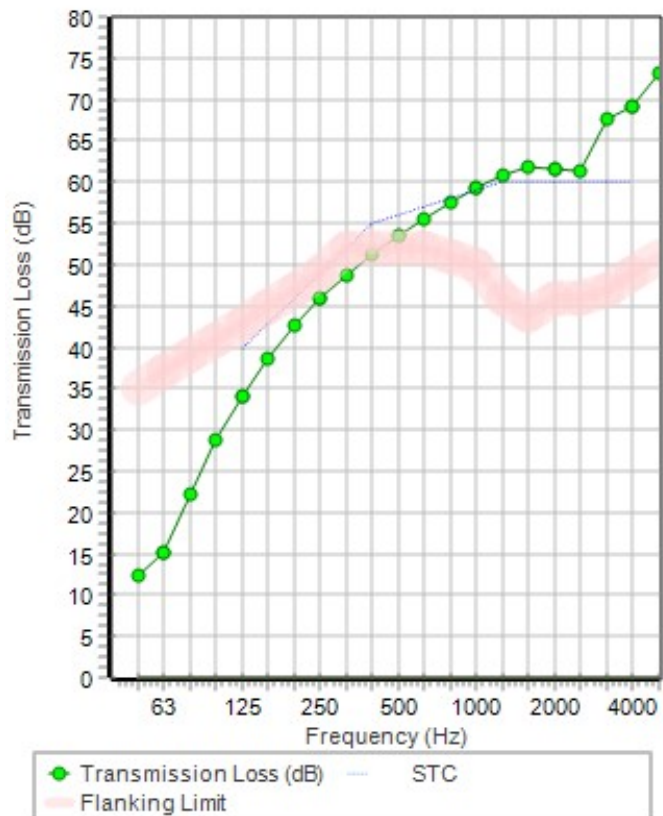
Cavity : Timber stud + resil. rail/bar: Stud spacing 16 in , Infill Fibreglass (10kg/m3) Thickness 6.0 in (p:10 lbs/ft3, Rf:4000 Pa.s/m2)

Panel 2 + 1 x 0.63 in Type X Gypsum Board (p:43.08 lbs/ft3, E:0.27psi\*10^6, η:0.01, ps:2.26 lb/ft2, fc:2491 Hz)

Mass-air-mass resonant frequency =51 Hz

Panel Size 8.9x13 ft; Mass 6.5 lb/ft2

frequency (Hz)	TL(dB)	TL(dB)
50	12	
63	15	15
80	22	
100	29	
125	34	32
160	39	
200	43	
250	46	45
315	49	
400	51	
500	54	53
630	56	
800	57	
1000	59	59
1250	61	
1600	62	
2000	62	62
2500	61	
3150	68	
4000	69	69
5000	73	



# Technical Data

## Wall Blokker™

### Acoustical Sound Barrier

*World's First Soundproofing Membrane designed specifically to increase sound attenuation across walls – Hit Higher STCs at a fraction of the Cost*

Commercial Acoustics Wall Blokker is an engineered barrier for sound reduction. Wall Blokker is an EVA mass loaded barrier, which is flexible and designed for commercial, industrial and residential applications. It is used behind a finished wall to reduce noise transfer across a wide array of frequencies, improving the STC of the partition.

Unlike traditional Mass Loaded Vinyl, Wall Blokker was developed in the automotive industry to provide superior soundproofing performance with long life-cycles and without off-gassing and other degrading processes. At 1/8" thick, a single layer can provide equivalent soundproofing to multiple layers of drywall, often at a fraction of the price and schedule.



### Product Specifications:

- Made with an engineered recycled Acoustical Grade Polymer.
- EVA (Ethylene Vinyl Acetate) Base - does not require plasticizers
- Non PVC (no ozone depleting gasses) and no VOCs
- 3-in-1 barrier (sound, moisture and air)
- Mold and mildew resistant
- Delta-STC of 8-12 points, depending on Wall Type
- High STC performance in single and multiple layer applications
- Flexible & easy to cut and install
- Made in the USA

### Product Performance:

- Acoustic Properties: Minimum STC 26 per ASTM E 90-02
- Flammability rating: Class A per ASTM E 84
- Mold & Mildew: No fungal or algae growth per ASTM D3273 and ASTM G 21.
- Fire Resistance: Rated for 1hr and 2 hr walls per ASTM E 119-08.
- Standard Sheet Dimensions
  - 4' by 8' sheet size
  - 4' by 25' roll size
  - Factory Cut to Wall Length to Minimize Scrap
- Sheet Weight
  - 1/8" Thick
  - 1 lb/ft<sup>2</sup> nominal
- Standard Tolerances
  - Width: + 0.5" - 0"
  - Length: +1% - 0"
  - Nominal Thickness: ±0.10"

Tested and approved for use in all wall designs of the U300, U400, and V400 series.



6122 Benjamin Rd. · Tampa, Florida 33634 · 888-815-9691

[www.Commercial-Acoustics.com](http://www.Commercial-Acoustics.com) · [info@commercial-acoustics.com](mailto:info@commercial-acoustics.com)



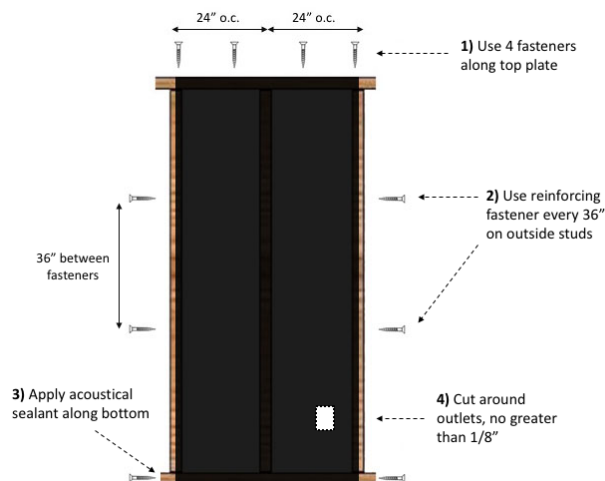
Frequency (Hz)	125	250	500	1000	2000	4000	STC	Test Number
Baseline Wood Studs	21	31	39	51	38	50	<b>34</b>	IRC-IR-693
Wall Blokker 1 side, 16" oc	17	35	42	50	47	57	<b>41</b>	RAL-TL08-138
Baseline Metal Studs	22	42	56	62	48	50	<b>44</b>	RAL-TL08-183
Wall Blokker 1 side, 16" oc	28	42	55	60	58	61	<b>53</b>	RAL-TL08-184
Wall Blokker 1 side, 24" oc	34	45	56	60	57	62	<b>56</b>	RAL-TL08-152
Wall Blokker 2 sides, 24" oc	42	53	60	64	64	70	<b>62</b>	RAL-TL08-155

## Installation:

1. Ensure surface is clean and dry
2. Wall Blokker attaches to wood studs with staples or screws, and metal studs with pan-head screws
3. Roll the Wall Blokker to the proper length of the wall, measured vertically
4. Start at the top of the wall, securing the Wall Blokker to the header stud with 4-5 staples or screws
5. Roll the membrane downward, so that each edge is directly in the middle of the adjacent stud. Do not lap edges.
6. Secure the membrane to the perimeter studs at 36" inches, nominally
7. Taping of the edges is optional
  - a. Mandatory if the edge does not fall on the stud face
8. Use standard drywall screws when fastening drywall board to the studs through the membrane. Wall Blokker is an EVA polymer that will tighten around the screws like a gasket
9. If holes/tears should take place, simply place vinyl tape over the gap
10. At bottom and top of the wall, ensure that gaps are less than or equal to ¼". Fill in gaps with non-hardening caulk
11. For HVAC, plumbing, or electrical penetrations, fill gap with fiberglass batting as needed and close with caulk
12. For overhead placement, placement on top of drywall prior to installation is recommended
13. Installation should not begin until all other trades are finished in the area
14. It is recommended that areas to receive Wall Blokker be weather tight. Materials can be stiff and less pliable at low temperatures

### Installation Overview:

- Installs vertically, directly to studs, beneath the drywall
- Installation requires two or more capable technicians/hangers
- No special training required



Tested and approved for use in all wall designs of the U300, U400, and V400 series.

# Commercial Acoustics Wall Blokker Specification

## Division 09 – Finishes

### Section 098400 – Acoustical Components

#### PART 1 – GENERAL

##### 1.1 SUMMARY

###### A. Section includes:

1. Wall Blokker by Commercial Acoustics soundproofing membrane.

##### 1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract including supplements and addendums.
- B. Applicable Specification Sections: Division 01 – General and Division 09 – Finishes.

##### 1.3 REFERENCES

###### A. International Building Code (IBC) 2012:

1. Section 1207 – *Sound Transmission*

###### B. ASTM Tests:

1. E90 – *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.*
2. E413 – *Classification for Rating Sound Insulation.*

###### C. ASTM Specifications:

1. C840 – *Standard Specification for Application and Finishing of Gypsum Board.*

##### 1.4 SUBMITTALS

###### A. For each product indicated:

1. Product Data Sheet: manufacturer's specifications including laboratory test summary.
2. Installation Instructions: detailed installation procedure including jobsite condition requirements, surface preparation requirements, and approved products.

##### 1.5 DELIVERY, STORAGE, AND HANDLING

###### A. All materials shall be delivered in original unopened packaging.

###### B. Wall Blokker may be stored in a wet or dry environment and may be stored outdoors for up to three months on construction sites without special tarps or covering.

1. If stored below freezing temperatures, material may require up to 48 hours of acclimation to regain pliability.
2. Acclimate Wall Blokker for a minimum of 24 hours at temperatures 60 degrees (F) or greater to reduce material stiffness when handling.
3. If material stiffens, it may be softened more rapidly using a heat gun.

##### 1.6 PROJECT CONDITIONS

###### A. Wall Blokker is typically installed after framing, insulation, and electrical are complete. Insulation should be installed in the wall cavity in addition for optimal performance.

###### B. Ensure that all applicable inspections are completed prior to installation of Wall Blokker.

###### C. Wall Blokker may be installed prior to "drying in" the building (prior to installation of windows and doors).

1. Drywall should be installed within 2-4 weeks of Wall Blokker to prevent excessive wear.
  - a. For longer delays, washers should be installed for securely fasten the material.

2. Drywall installation permanently attaches Wall Blokker to the stud.

## PART 2 – PRODUCTS

### 2.1 WALL BLOKKER BY COMMERCIAL ACOUSTICS

#### A. Materials:

1. Engineered sound reduction membrane.
2. Flexible Ethylene Vinyl Acetate (EVA) product made from post-industrial recycled material.

#### B. Dimensions:

1. Thickness: 1/8"
2. Weight: 1 lb/sq.ft.
3. Standard Sizes: 4'x25' rolls; 4'x10' and 4'x8' sheets; custom length rolls available.
4. Tolerances:
  - a. Width: +/- 0.5"
  - b. Length: +/- 1%
  - c. Nominal Thickness: +/- 0.10"

#### C. Performance:

1. Minimum STC = 25 (ASTM E90).
2. UL Classified Assemblies:
  - a. 300, 400, 500 Series
3. Flammability Rating:
  - a. Class 1 (ASTM E84 Rev. A)
  - b. 1-Hour fire resistance wall rating (ASTM E119)
  - c. 0.3 Thermal Resistance coefficient (ASTM C518)
4. Environmental:
  - a. Mold/Mildew resistant. No fungal/algae growth and no visible disfigurement (ASTM D3273 & ASTM G21).
  - b. Impermeable air and moisture barrier.
  - c. Non-PVC: no off-gassing.
  - d. HIPPA Compliant.
  - e. 100% recyclable at end of life.

## PART 3 – EXECUTION

### 3.1 PREPARATION

- A. Wall and/or stud assembly to receive Wall Blokker must be structurally sound prior to installation.
- B. Wall must be clean and free of debris.
  1. Protrusions greater than 1/16" shall be scraped from the surface to avoid puncturing.
- C. See Section 1.6 for additional project condition requirements.

### 3.2 INSTALLATION

- A. Starting in one corner of the room, install Wall Blokker flush with the top of the top plate, and hang it vertically.
- B. Wood Studs:
  1. Attach Wall Blokker to the top of the wood top plate using wide-crown 1/2" staples or pan head screws.

2. Fasten every 12" horizontally along the top plate.
  3. Straighten Wall Blokker from the top down so that it is flush against the studs.
  4. Attach Wall Blokker to the center of each vertical wood stud using ½" staples or pan head screws.
  5. Fasten every 36" vertically along the center of each stud using an exterior fastener pattern, only fastening to the stud where the seam falls.
- C. Metal Studs:
1. Attach Wall Blokker directly to the light gauge metal studs using drywall screws.
  2. Fasten every 12" horizontally along the top.
    - a. Wall Blokker installed on walls greater than 15' in height shall be secured with washers along the top to prevent the fasteners from tearing the material.
    - b. Fasteners shall be used on intermediate studs (in addition to exterior studs) every 12' vertically.
  3. Straighten Wall Blokker from the top down so that it is flush against the studs.
  4. Attach Wall Blokker to the center of each vertical stud using drywall screws.
  5. Fasten every 36" vertically along the center of each stud.

### 3.3 PROCEDURE

- A. Install Wall Blokker as required on all walls.
- B. Keep fasteners as flush as possible to prevent protrusion into the finished wallboard.
  1. Fasteners shall not protrude more than 1/16" from Wall Blokker surface.
- C. Do NOT overlap the seams of separate sheets.
  1. Tightly butt the side of the next sheet of Wall Blokker to the edge of the existing attached sheet.
- D. For seams that do not fall on a stud, tape with "Seam-Seal" or equivalent.
  1. If seams fall on the stud with gaps greater than 1/8", then taping is also required.
  2. Ensure that there are no bubbles or wrinkles in the tape. Commercial tape alternatives include commercial duct tape.
  3. The tape is semi-permanent and will be permanently sealed in position when drywall is installed. Drywall installation will seal Wall Blokker against the existing studs.
- E. Cut Wall Blokker to fit around irregular objects and penetrations including outlets, switches, and junction boxes.
  1. Gaps shall be less than 1/8".
  2. Gaps greater than 1/8" shall be sealed with acoustical or non-hardening caulk.
  3. Gaps greater than 1/4" may be filled with backer rod or fiber batting.
  4. Putty pads should be installed on the back of all electrical boxes.
- F. Caulk the bottom of the floor plate at the floor line with acoustical sealant.
- G. Install drywall per normal technique (ASTM C840).
  1. Wall Blokker will be fastened permanently when the gypsum board is installed.
- H. See Detailed Installation Instructions Figure 1 for diagrams.

#### CONTACT WITH QUESTIONS:

Commercial Acoustics, (888) 815-9691  
 6122 Benjamin Rd, Tampa, FL 33634

END OF SECTION



## Wall Blokker

Wall Blokker is a mass loaded, limp vinyl sound damping material designed for commercial, industrial, and residential applications to reduce sound transmission. It is used primarily behind finished wall or ceiling surfaces to block and damp noise through the entire sound spectrum.

### *Installation Instructions*

*Please check our website for the latest installation instructions:*

<http://commercial-acoustics.com/wp-content/uploads/2017/10/Wall-Blokker-Detailed-Installation.pdf>

**DO NOT USE WALL BLOKKER TO SURROUND OR ENCLOSE ANY LIGHT FIXTURES  
CUT WALL BLOKKER BACK A MINIMUM OF 12" AWAY FROM ANY CANNED LIGHTS**

#### Preparation:

1. Wall Blokker is typically installed after framing, insulation and electrical are complete. Insulation should be used in the wall cavity in addition for optimal performance.
2. Ensure that all applicable inspections are completed prior to installation of Wall Blokker
3. Wall Blokker may be installed prior to "drying in" the building (prior to installation of windows and doors)

#### **Step 1** Preparation & Storage

Drywall should be installed within 2-4 weeks of Wall Blokker to prevent excessive wear. If longer delays are expected, washers should be installed to securely fasten Wall Blokker. Drywall installation permanently attaches the Wall Blokker to the stud.

#### Storage:

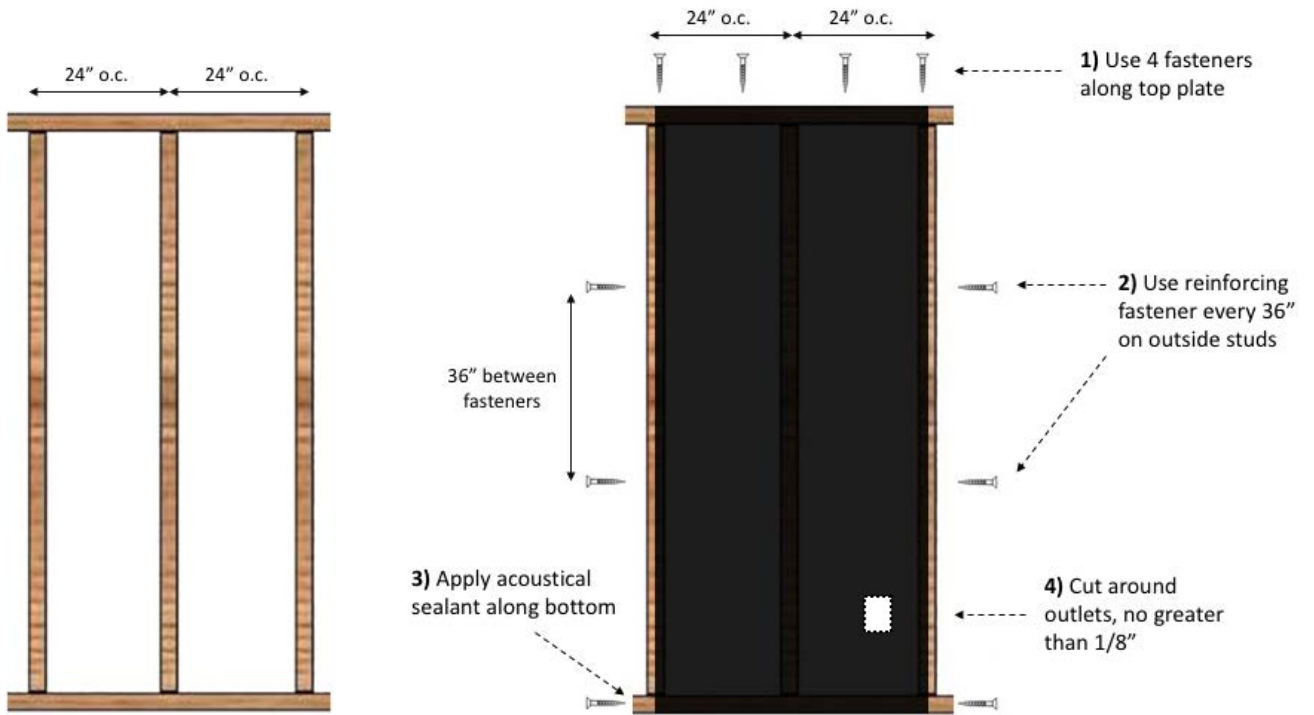
Wall Blokker may be stored in wet or dry environment, and may be stored outside for up to 3 months on construction sites without special tarps or covering. If stored below freezing temperatures, material may require 24-48 hours of acclimation to regain pliability.

#### **Step 2** Install Wall Blokker

1. Acclimate Wall Blokker for a minimum of 24 hours at temperatures 60°F or greater to reduce material stiffness when handling;
2. Starting in one corner of the room, install Wall Blokker flush with the top of top plate, and hang it vertically.
3. **Wood Studs:** Attach Wall Blokker directly to the top of the wood top plate using wide-crown ½" staples or pan head screws. A fastener every 12" horizontally is recommended along the top. Straighten Wall Blokker so that it is flush against the wood studs, and apply from the top down. Using staples or pan head screws, attach Wall Blokker to each stud in the center of the stud. Only 1 fastener is required every 36" for each vertical stud (refer to Diagram 1). Use an exterior fastener pattern, only fastening to the studs where the seam falls.
  - **NOTE:** Hammer Stapler may be best way to attach staples through Wall Blokker into stud.[See Figure 1 for details]
4. **Metal Studs:** Attach Wall Blokker directly to the metal stud using drywall screws. A screw

every 12" is recommended along the top. Straighten Wall Blokker so that it is flush against the metal studs. Using drywall screws, attach Wall Blokker to the stud in the middle of the stud. Only 1 fastener is required every 36" for each vertical stud. [See Figure 1 for details]

5. **NOTE: High Walls**
  - Wall Blokker on walls higher than 15' shall be secured with washers along the top to prevent the fasteners from pulling through the material
  - Fasteners should also be used on intermediate studs (in addition to exterior studs) every 12' vertically
6. Install Wall Blokker on all required walls;
7. Keep fasteners as flush as possible, since all protrusions will put a dimple into the finished wallboard. Fasteners shall not protrude more than 1/16" from Wall Blokker surface.
8. Tightly butt the side of the next sheet of Wall Blokker to the edge of the attached sheet. Do not overlap seams;
9. Tape all seams with "Seam-Seal" or equivalent. Ensure that there are no bubbles or wrinkles in the tape. The tape is semi-permanent, and will be permanently sealed in position when drywall is hung.
  - If seams fall on the stud, with no gaps >1/8", then no taping is required. Drywall installation will seal the Wall Blokker against the existing studs.
  - Commercial Tape Alternatives include commercial duct tape
10. Wall Blokker is easily cut to fit around irregular objects and electrical boxes. The material should be cut around outlets, switches, and junction boxes. Gaps shall be less 1/8". If greater, they shall be sealed with acoustical caulk. Gaps greater than 1/4" may be filled with backer rod or fiber batting.
11. Putty pads should be installed on the back of all electrical boxes;
12. Caulk the bottom plate at the floor line with acoustical sealant;
13. Install drywall per normal technique (ASTM# C840 – Standard Specification for Application and Finishing of Gypsum Board). Wall Blokker will be fastened permanently when the gypsum board is hung.

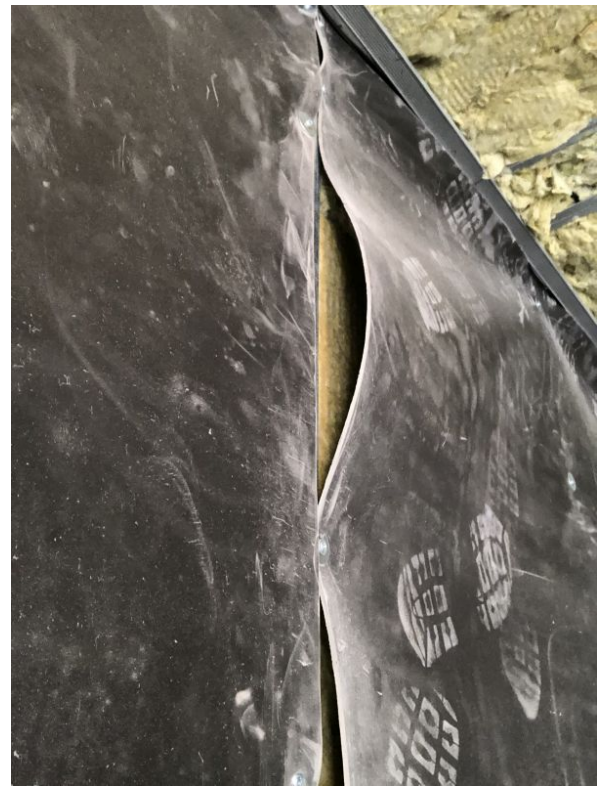


[Figure 1]

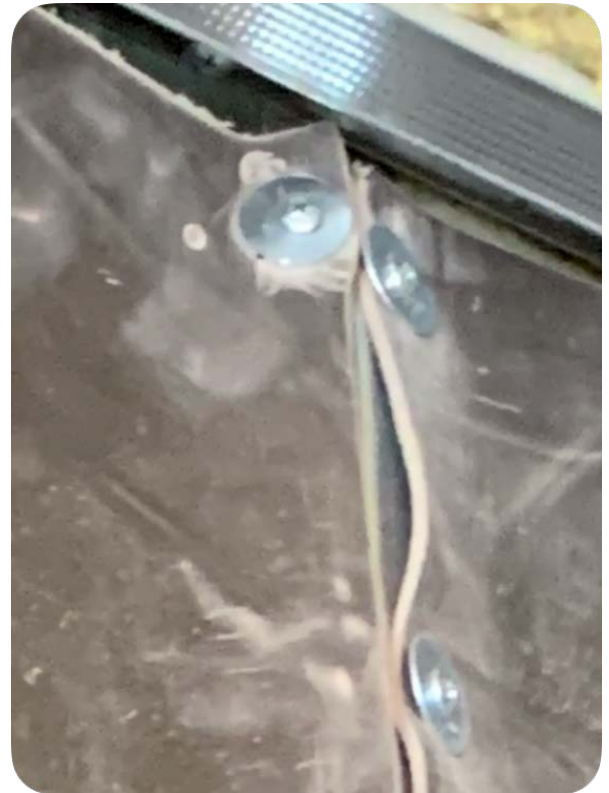
## Appendix A: Acceptance Criteria:

When performing Quality Assurance (QA) review, at the end of each day, look for pieces that do not meet the following criteria, and re-attach them, or tear down and replace.

1. Maximum lateral opening allowed = 1/4"  
Tape all openings that do not meet on the stud
2. Maximum depth, distance from stud (for bubbles/wrinkles) = 1/2"
3. Maximum distance of screw protruding out of stud = 1/8"
4. Maximum angle of screw = 15 degrees (assuming it meets #3 also)



Depth > 1/2" from stud is not acceptable



Screw protrudes from stud >1/8" and is angled on to stud. Both conditions unacceptable.