

# Go ahead and turn up the volume!



## **Cotton Armor** protects your family and neighbors from unwanted noise.

Due to an increasing concern for sound control within our environments, Applegate Insulation has engineered Cotton Armor---a new line of acoustical and thermal insulation products for a quieter, more peaceful world. Made in the U.S.A. out of a minimum of 85% recycled content, you can rest easy knowing that your tranquility is good for the environment, too.

**COTTON  
ARMOR**<sup>™</sup>  
ACOUSTICAL  
SOLUTIONS

Available at: **Eco-Building Products, Inc**  
[www.Eco-BuildingProducts.com](http://www.Eco-BuildingProducts.com)  
[Sales@Eco-BuildingProducts.com](mailto:Sales@Eco-BuildingProducts.com)  
231.399.0700

[applegatecottonarmor.com](http://applegatecottonarmor.com)

855-6-COTTON

855-626-8866

## ■ Beyond Quieter Living

Stay comfortable in your home year-round for less. Keep your family safer in the event of a fire. *Sound* good? It gets better.

Now you can protect your family from unwanted noise with the superior sound attenuating properties of Applegate's Cotton Armor insulation. Noise pollution is an increasing critical concern for many families, and includes harmful effects such as hearing loss, tinnitus, increased stress, and sleep deprivation. Cotton Armor provides peace and tranquility with its custom press fit and ease of sizing, reducing acoustical shortcuts that are typical of less rigid batt insulations, such as typical fiberglass. Just cut or tear to size and press it in to the wall cavity, and the spring-back action will help fill gaps around plumbing, air ducts, and wiring.



Cotton Armor offers more sound control than typical fiberglass.

## ■ Offering You Even More

Safe to touch. Safe to live with. Cotton Armor contains no OSHA cancer warning, formaldehyde, glass fibers, or itchy texture. It will shield your family without the chemicals associated with increased health concerns.

## ■ Protecting You and Your Family

Applegate's Cotton Armor has no flammable kraft-facing. A proprietary process—**BURNBARRIER™**—infuses liquid fire retardants, providing permanent flame resistance to defend your family. Plus, Cotton Armor's unique structure slows down air movement—including the oxygen that would fuel a fire.

**lifetime warranty** Applegate Insulation proudly offers a Lifetime Warranty.

\*Source: Life Cycle Analysis for Denim Fiber Recycled Cotton Insulation  
 To request a copy of the Life Cycle Analysis :  
<http://www.mrinsulate.net/comparison.html>

## SUPERIOR SOUND CONTROL

Cotton Armor is a great selection for its sound attenuation properties and can provide the peace and quiet you deserve.

The following Sound Transmission Class (STC) ratings show effectiveness in attenuating noise. The higher the STC number, the greater the reduction in sound:

<b>R-21 COTTON ARMOR</b>	
Steel Stud Wall	<b>54 STC</b>
<b>R-19 COTTON ARMOR</b>	
Steel Stud Wall	<b>53 STC</b>
Party Wall	<b>59 STC</b>
Party Wall with two layers of Cotton Armor	<b>62 STC</b>
<b>R-13 COTTON ARMOR</b>	
Steel Stud Wall	<b>52 STC</b>
Party Wall	<b>57 STC</b>
Party Wall with two layers of Cotton Armor	<b>60 STC</b>

Above Steel Stud Wall STC ratings, calculated according to ASTM E-90 testing for sound transmission loss in 24" o.c. steel stud walls and one 5/8th inch layer type X gypsum on each side.

Above party wall STC ratings, calculated according to ASTM E-90 testing for sound transmission loss in double 24" o.c. wood stud walls with one 5/8th inch layer type X gypsum on each side.

## ■ A Greener Future

In a Life Cycle Analysis, Mr. Insulate Cotton Armor was found to be 54% more energy efficient\* in production than fiberglass. This is due to the use of recycled renewable resources, and application of modern, energy-efficient electrical equipment, rather than the blast furnaces utilized in fiberglass manufacturing. Cotton Armor production was also found to result in less than 53% CO<sup>2</sup> equivalent (Kilograms of CO<sup>2</sup> and other gasses) and 29% less water than fiberglass manufacturing. The truly sustainable Cotton Armor will make your home a safer place to live, work, and enjoy.







Measure and cut with a simple utility knife along Cotton Armor's width. A custom fit is yours with ease.



Tear with your hands lengthwise! Cotton Armor's easy fit around common obstacles found in wall cavities reduces acoustical shortcuts.

## Single Metal Stud Wall Assemblies

SUMMARY OF TEST RESULTS			
Item Code & Sample Description	Wall Description (Nominal Dimensions)	STC	OITC
<b>10-2002</b> SERIES/MODEL: <b>R-13, 24" Cotton Armor</b>	3-5/8", 24" o.c. metal studs with one layer of 5/8" Type "X" gypsum board on each side and R-13, 24" blanket insulation in the cavity	52	32
Reference: Architectural Testing, Inc. Report No. B2399.01 - 113 - 11.			
<b>10-2010</b> SERIES/MODEL: <b>R-19, 24" Cotton Armor</b>	6", 24" o.c. metal studs with one layer of 5/8" Type "X" gypsum board on each side and R-19, 24" blanket insulation in the cavity.	53	35
Reference: Architectural Testing, Inc. Report No. B2400.01 - 113 - 11.			
<b>10-2014</b> SERIES/MODEL: <b>R-21, 24" Cotton Armor</b>	6", 24" o.c. metal studs with one layer of 5/8" Type "X" gypsum board on each side and R-21, 24" blanket insulation in the cavity.	54	38
Reference: Architectural Testing, Inc. Report No. B2401.01 - 113 - 11.			

## Double Wood Stud Wall Assemblies

SUMMARY OF TEST RESULTS			
Item Code & Sample Description	Wall Description (Nominal Dimensions)	STC	OITC
<b>10-2002</b> SERIES/MODEL: <b>R-13, 24" Cotton Armor</b>	2" x 4" double 24" o.c. wood stud wall assembly with one layer of 5/8" Type "X" gypsum board on each side and one layer of R-13, 24" blanket insulation in the cavity.	57	40
<b>10-2002</b> SERIES/MODEL: <b>R-13, 24" Cotton Armor</b>	2" x 4" double 24" o.c. wood stud wall assembly with one layer of 5/8" Type "X" gypsum board on each side and two layers of R-13, 24" blanket insulation in the cavity.	60	43
Reference: Architectural Testing, Inc. Report No. B4602.01 - 113 - 11.			
<b>10-2010</b> SERIES/MODEL: <b>R-19, 24" Cotton Armor</b>	2" x 6" double 24" o.c. wood stud wall assembly with one layer of 5/8" Type "X" gypsum board on each side and one layer of R-19, 24" blanket insulation in the cavity.	59	42
<b>10-2010</b> SERIES/MODEL: <b>R-19, 24" Cotton Armor</b>	2" x 6" double 24" o.c. wood stud wall assembly with one layer of 5/8" Type "X" gypsum board on each side and two layers of R-19, 24" blanket insulation in the cavity.	62	45
Reference: Architectural Testing, Inc. Report No. B4603.01 - 113 - 11.			

# Sound Abatement Panels & Baffles

If you want fantastic sound control without needing the additional thermal properties, Mr. Insulate sound panels and baffles are perfect for your industrial and residential (such as for home theatres) needs.



## Baffles

*Excellent for:* Hanging sound control: industrial, stadiums, arenas, auditoriums, etc.

### ITEM CODE# 10-3001

2 in x 2 ft x 4 ft : 3-lb density sound baffle

### ITEM CODE# 10-3003

1 in x 2 ft x 4 ft : 3-lb density sound baffle

## Type "J"-Mounting Test Results

The test specimens were suspended vertically in four parallel rows with two baffles per row. The baffles were suspended 24" above the test surface (floor) of the reverberation room with all of the absorptive sides exposed to the sound field. The specimens were arranged so that there were 30" between the adjacent rows. The sound absorption test was then re-run. The absorption measurement with the specimen inside the chamber shall be referred to as the full room test.

**Number of Panels for Type "J"-Mounting Sample: 8**

SUMMARY OF TEST RESULTS							
SAMPLE INFORMATION		Size: 0.61 m by 1.22 m (2' by 4')					
Sample A: 1", 3 Pound Density		Sample B: 2", 3 Pound Density					
Item Code & Sample Description	1/3 Octave Sound Absorption (M <sup>2</sup> per unit) at the Octave Band Frequencies						
	125	250	500	1000	2000	4000	
<b>10-3003</b> SERIES/MODEL: 1", 3 pound density sound baffles	0.23	0.49	0.96	1.27	1.17	1.23	
<b>10-3001</b> SERIES/MODEL: 2", 3 pound density sound baffles	0.32	0.52	1.17	1.47	1.34	1.32	



## Panels

*Excellent for:* Exposed wall mounting: home theaters, auditoriums, movie theaters, hallways, etc.

### ITEM CODE# 10-3000

2 in x 2 ft x 4 ft : 3-lb density sound panel

### ITEM CODE# 10-3002

1 in x 2 ft x 4 ft : 3-lb density sound panel

## Type "A"-Mounting Test Results

The test specimen was placed directly against the test surface (floor) of the reverberation room with the absorptive side exposed to the sound field. The perimeter of the sample sealed to the floor with duct tape. The sound absorption test was then re-run. The absorption measurement with the specimen inside the chamber shall be referred to as the full room test.

**Overall Size for Type "A"-Mounting Sample: 2.44 m by 2.74 m (8' by 9')**

SUMMARY OF TEST RESULTS								
SAMPLE INFORMATION		Size: 0.61 m by 1.22 m (2' by 4')						
Sample A: 1", 3 Pound Density		Sample B: 2", 3 Pound Density						
Item Code & Sample Description	1/3 Octave Sound Absorption Coefficients at the Octave Band Frequencies						NRC	SAA
	125	250	500	1000	2000	4000		
<b>10-3002</b> SERIES/MODEL: 1", 3 pound density sound panels	0.16	0.52	1.07	1.06	0.96	0.98	<b>0.90</b>	<b>0.88</b>
<b>10-3000</b> SERIES/MODEL: 2", 3 pound density sound panels	0.27	0.87	1.17	1.15	0.96	1.06	<b>1.05</b>	<b>1.04</b>



*O sing unto the LORD a new song; for he hath done marvellous things... Make a joyful noise unto the LORD, all the earth: make a loud noise, and rejoice, and sing praise. – Psalm 98:1, 4*