For unsurpassed sound and fire performance
for walls and ceilings

THERMAFIBER®

Sound Attenuation Fire Blankets (SAFB)

Contents

U.S. GREEN BUILDING COUNCIL MEMBER

Post-Industrial Recycle Content

80%

LEED Green Building Credits			
Energy & Atmosphere	Recycle Content	Regional Materials	Innovation & Design Process
1	4.1 4.2	5.1 5.2	1.1 1.2 1.3 1.4

THERMAFIBER® Sound Attenuation Fire Blankets (SAFB) are the best way to stop sound in wall and ceiling assemblies. The noncombustible mineral-fiber composition of this product not only gives it high sound attenuation characteristics, but also enables it to contribute to high fire ratings in many assemblies. The tests prove that THERMAFIBER SAFBs are the best performance value for multi-family residential projects, hotels and motels, offices and retail businesses. A few of the innumerable tests of assemblies utilizing THERMAFIBER SAFBs for sound and fire performance are shown on pages 5-9. For other available systems contact THERMAFIBER, INC.

Benefits of Thermafiber SAFB's

Higher Recycle Content:
Thermafiber SAFB's consist of over 80% recycled content versus 40–50% recycled content of glass fiber and other ordinary mineral wool products.

LEED® Credits:
Using Thermafiber insulation products can make it possible to earn up to 20 LEED® credits for your building from 4 different categories.

Reduction of GHG Emissions:
Thermafiber insulation reduces the amount of energy needed to heat and cool a building. Less energy use means less Greenhouse Gas (GHG) emissions.

Better Indoor Air Quality:
Thermafiber insulation meets and exceeds the California standard for chemical emissions, one of the highest standards in the country. Our insulation is also inorganic, which means there is no food source to grow mold or mildew.

System Performance

THERMAFIBER Sound Attenuation Fire Blankets are the highest quality insulations in the building industry. Systems incorporating THERMAFIBER SAFBs exhibit the following features:

- More **fire**, **sound** and **thermal** tests than any other insulation product.
- High density of THERMAFIBER SAFBs makes them resist sagging and stand up better in stud cavities.
- Enhances fire protection—adds to fire performance of many assemblies (see pages 5-9).
- Efficient sound performance—see pages 5-9 for 30 typical assemblies with sound and fire ratings.
- Special details—Can be used in acoustical ceilings as overlayment to **reduce flanking** sound; **"creased"** systems provide additional sound performance through acoustic engineering. Note that THERMAFIBER Sound Attenuation Fire Blankets may be used in a wide variety of acoustical applications, including those in occupied spaces and ceiling air plenums.

Superior Sound Attenuation

Ratings have improved by as much as 11 points in some cases when THERMAFIBER SAFBs are installed in stud cavities. These blankets are also effective in reducing low-frequency sound levels from machinery, mechanical equipment and music. Features include:

- Higher efficiency attenuation than with glass fiber insulation. A test conducted by USG showed the following performance: A 3-5/8" steel-framed wall with 5/8" gypsum panels on both sides tested as STC 40 (no insulation); with 3-1/2" glass fiber insulation in the stud cavity, performance improved to STC 47; with 3" THERMAFIBER SAFBs instead, performance was STC 49. The same system with 3" Creased THERMAFIBER SAFBs yielded an STC 51.
- High density insulation provides high-performance attenuation at medium and high frequencies—critical frequencies when speech is the principal sound source (such as in offices).

Superior Fire Resistance

All THERMAFIBER products perform well in fire protection:

- THERMAFIBER SAFBs are defined as "noncombustible" by NFPA Standard 220 when tested according to ASTM E136.
- Tests proved that THERMAFIBER products can resist temperatures in excess of 2,000 °F, comparing favorably with glass fiber products that begin to disintegrate and melt at about 1,050 °F.
- Side-by-side fire-exposure test conducted according to ASTM E119 test procedure demonstrated that THERMAFIBER insulation remained intact significantly longer than the glass fiber insulation. In a one hour test, THERMAFIBER Insulation maintained its integrity more than twice as long as the glass fiber insulation (see next page).

Fire Performance Testing

Effective performance for both high sound and fire ratings is the unique characteristic of THERMAFIBER Sound Attenuation Fire Blankets. Glass fiber insulation simply doesn't compare. Glass fiber's lower density means lower sound performance, according to sound tests conducted by USG.

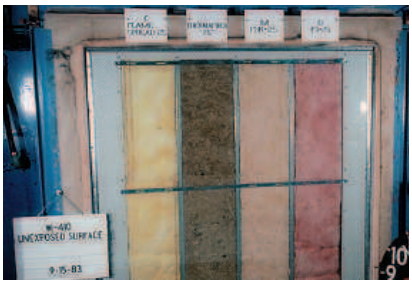
Evaluations of various densities and thicknesses showed that the best acoustical performance in mid- and high-frequency sound (typical in offices and between hotel rooms) was with insulations of a nominal density of 2.5 lb./cu. ft. Densities above 2.5 lb./cu. ft. performed better at higher frequencies. Insulations below 2.5 lb./cu. ft. performed poorly in attenuating mid- and high-frequency sound. THERMAFIBER Sound Attenuation Fire Blankets have a nominal density of 2.5 lb./cu. ft., while glass fiber insulations typically fall in the range of 0.7 to 0.8 lb./cu. ft. Results vary for the specific assembly, but tests demonstrated that THERMAFIBER SAFBs provided STC ratings of up to 4 points higher than glass fiber insulations*, even when the glass fiber was 1/2-in. to 1-in. thicker.

Because THERMAFIBER Sound Attenuation Fire Blankets are manufactured from slag, a by-product of iron ore reduction, the mineral fiber in THERMAFIBER Blankets is highly resistant to fire. Thus many of the systems this product is used in have high fire ratings as well as sound ratings.

In a fire test conducted to compare the fire performance of THERMAFIBER products with competitive look-alike products with no extensive fire testing, glass fiber failed to stand up to fire. For one test, a single wall assembly was constructed of 25-ga., 3-1/2-in. galvanized steel studs to form four 16-in. stud cavities. Each of the stud cavities was filled with a different brand of aluminum foil-faced insulation—three were typical glass fiber brands and one (pictured below, second from left) was THERMAFIBER Insulation.

The assembly was oriented with aluminum foil-faced side exposed to a fire chamber. The fire was controlled in accordance with ASTM E119 time-temperature relationship. Three minutes into the test, all three glass fiber insulations began to discolor, and 17 minutes into the test, fire had penetrated them. At the end of 55 minutes, the glass fiber insulations had all melted or fallen completely away from the stud cavities, while the THERMAFIBER Insulation remained intact (see photo).

In a test of three glass fiber insulations versus THERMAFIBER Insulation, the glass fiber insulation melted away resulting in studs contact with flame. The THERMAFIBER Insulation and surrounding frame are still intact.

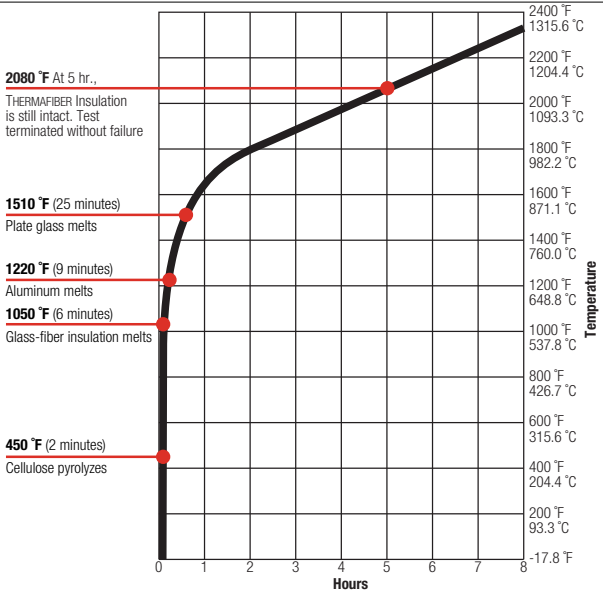


Insulation before test

Insulation after test

* Note: Comparative tests were conducted with a series of partitions using 2.5-3.0 lb./cu. ft. density THERMAFIBER SAFBs versus 0.7-0.8 lb./cu. ft. glass fiber insulation of equal or greater thickness. The results showed that THERMAFIBER SAFBs improved performance by an average of 0.9 dB in the 125/250 Hz octave band center frequencies, 1.6 dB in the 500/1000 Hz octave band center frequencies and 3.3 dB in the 2000/4000 Hz octave band center frequencies.

Graph of THERMAFIBER Insulation performance in fire test controlled in accordance with ASTM E119 time-temperature relationship shows superior fire characteristics of THERMAFIBER Insulation products.



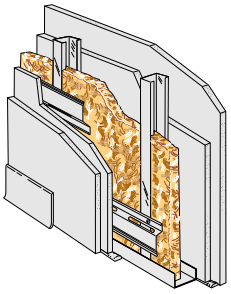
Sound & Fire Tests

The following are typical assemblies containing THERMAFIBER Sound Attenuation Fire Blankets (SAFBs). Each has been tested for acoustical performance and each has a fire rating or estimated fire rating. The Sound Transmission Class (STC), Impact Insulation Class (IIC), Ceiling Attenuation Class (CAC) and Field Sound Transmission Class (FSTC) are listed first and assemblies of each type are listed in order with highest sound performance first. UL design or other fire test or sound test information are identified at the end of the assembly description. A wide variety of systems are shown to provide choices in performance and cost. For additional fire- and sound-rated wall and ceiling assemblies utilizing THERMAFIBER Sound Attenuation Fire Blankets, contact Thermafiber, Inc.

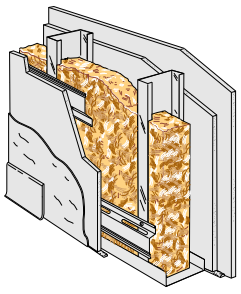
For further information about any of the assemblies listed here, consult your Thermafiber sales representative, or visit us online at www.thermafiber.com.

Sound and Fire-Rated SAFB Assemblies

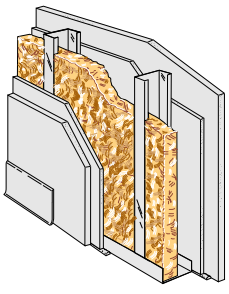
Steel Stud Partitions (Non-Load-Bearing)



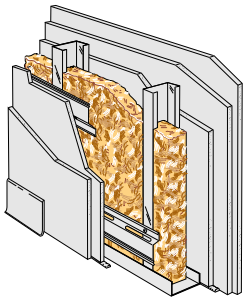
61 STC*
2-hr. partition, double-layer, resilient channel—minimum 1" THERMAFIBER SAFB in stud cavity—5/8" gypsum wallboard Type C core—2-1/2" 25 ga steel studs 24" o.c.—RC-1™ channel or equivalent one side, spaced 24" o.c. screw-att to studs—2 layers gypsum panels screw-att to channels, 2 layers screw-att to steel studs—joints stag and fin—perimeter caulked—**UL Des U454—RAL-TL-83-214**



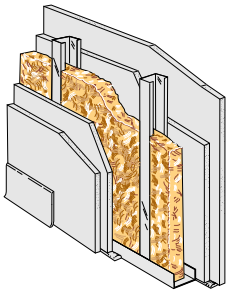
58 STC*
1-1/2-hr. unbalanced partition, resilient channel 3" THERMAFIBER SAFB in stud cavity—1/2" gypsum wallboard Type C core—3-5/8" 20 ga studs 24" o.c.—RC-1 channels or equivalent one side spaced 24" o.c. screw-att to studs—2 layers gypsum panels screw-att to studs, 1 layer screw-att to channels —joints stag and fin—perimeter caulked—**UL U452—RAL-TL-83-215**



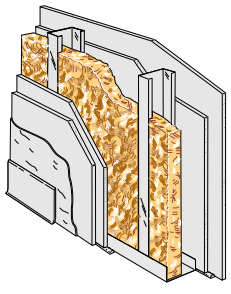
55 - 59 STC
1-hr. partition—Base layer 1/4" gypsum wallboard applied parallel to each side of 2-1/2" steel studs 24" o.c. with 1" Type S drywall screws 12" o.c. —Face layer 5/8" Type X gypsum wallboard or gypsum veneer base applied parallel to each side with 1-5/16" Type S drywall screws 12" o.c.—Joints staggered 24" each layer and side. Sound tested with 1-1/2" mineral fiber insulation, 3.0 pcf, friction fit in stud space—**GA WP-1015**



61 STC*
3-hr. partition, double-layer, resilient channel—3" THERMAFIBER SAFB in stud cavity—1/2" gypsum wallboard Type C core—3-5/8" 20 ga studs 24" o.c.—RC-1 channel or equivalent one side, spaced 24" o.c. screw-att to studs—3 layers gypsum panels screw-att to studs, double layer screw-att to chan—joints stag and fin—perimeter caulked—**UL Des U419 or U455—RAL-TL-87-153**



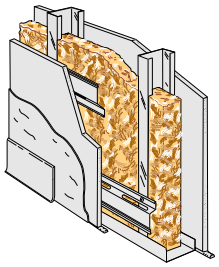
56 STC
4-hr. partition, double-layer—2" THERMAFIBER SAFB in stud cavity—2 layers 3/4" SHEETROCK Brand gypsum panels, ULTRACODE® core, ea side—2-1/2" 25 ga steel studs 24" o.c.—panels screw att with joints stag and fin—**UL Des U419, U490-ULC W441 or SA-910907**



55 STC*
2-hr. partition, double-layer—1-1/2" THERMAFIBER SAFB in stud cavity—2 layers 1/2" gypsum wallboard Type C core, ea side—3-5/8" 25 ga steel studs 24" o.c.—joints staggered—base layer screw att—face layer strip lamin or screw att—joints fin—perimeter caulked—**UL Des U412 or U419-ULC W406—SA-800421**

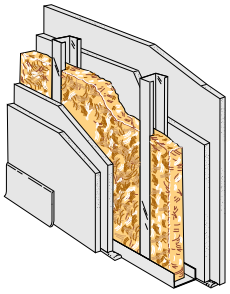
***STC values are based on SHEETROCK® Brand gypsum panels, FIRECODE® C

Steel Stud Partitions (Non-Load-Bearing) continued



54 STC*

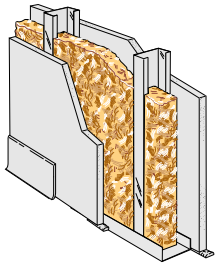
1-hr. partition, single-layer, resilient channel—3″ THERMAFIBER SAFB in stud cavity—5/8″ gypsum wallboard Type C core—3-5/8″ 20 ga steel studs 24″ o.c.—RC-1 chan or equivalent one side spaced 24″o.c. screw-att to studs—gypsum panels screw-att to studs & RC-1 channels—joints stag and fin—perimeter caulked—**UL Des U419 or U451** rating also applies with IMPERIAL Brand gypsum base, FIRECODE C core, and veneer finish surface—**RAL-TL-83-216**



50 - 54 FSTC

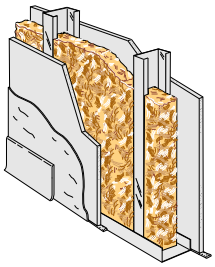
2-hr. partition—Base layer 1/2" Type X gypsum wallboard or gypsum veneer base applied parallel to each side of 1-5/8" steel studs 24" o.c. with 1" Type S drywall screws 12" o.c.—Face layer 1/2" Type X gypsum wallboard or gypsum veneer base applied parallel to each side with 1-5/8" Type S drywall screws 12" o.c.—Joints staggered 24" each layer and side. Sound tested with 1-1/2" mineral fiber insulation friction fit in stud space—**GA WP-1530**

Note: Can be used as a non-load bearing area separation wall—**GA ASW-1100**



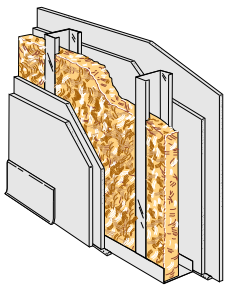
50 STC

2-hr. partition, single-layer—3″ THERMAFIBER SAFB in stud cavity—3/4″ SHEETROCK Brand gypsum Panels, ULTRACODE core, ea side—min. 3-1/2″ 25 ga steel studs 24″ o.c.—panels screw att—joints stag & fin—perimeter caulked—**UL Des U419, U491 or ULC W440—USG-910617**



51 STC**

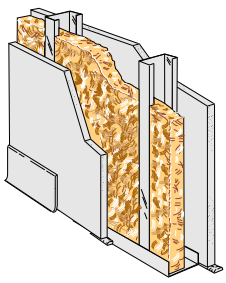
1-hr. partition, single-layer, Creased—3" Creased THERMAFIBER SAFB in stud cavity—5/8" gypsum wallboard Type X—3-5/8" 25 ga steel studs 24" o.c.—panels screw att—joints stag & fin—perimeter caulked—**UL Des U419 or U465—RAL-TL-90-166—SA-860620**



50 - 54 STC

2-hr. partition—Base layer 1/2" Type X gypsum wallboard or gypsum veneer base applied parallel to each side of 2-1/2" steel studs 24" o.c. with 1" Type S drywall screws 24" o.c.—Face layer 1/2" Type X gypsum wallboard or gypsum veneer base applied parallel to each side with 1-5/8" Type S drywall screws 12" o.c.—Joints staggered 24" each layer and side. Sound tested with 1-1/2" mineral fiber insulation friction fit in stud space—**GA WP-1545**

Note: Can be used as a non-load bearing area separation wall—**GA ASW-1105**

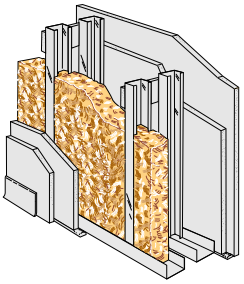


45 - 49 STC

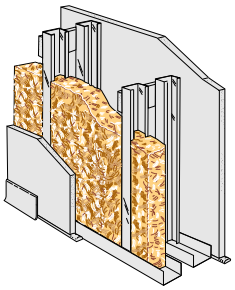
1-hr. partition—One layer 1/2" Type X gypsum wallboard or gypsum veneer base applied parallel to each side of 2-1/2" steel studs 24" o.c. with 1" Type S drywall screws 8" o.c. at vertical joints and 12" o.c. at intermediate studs. 2" mineral fiber insulation, 2.5 pcf, friction fit in stud space—Joints staggered 24" on opposite sides—**GA WP-1070**

***STC values are based on SHEETROCK® Brand gypsum panels, FIRECODE® C
****STC values are based on SHEETROCK® Brand gypsum panels, FIRECODE®

Steel Stud Chase Walls (Non-Load Bearing)

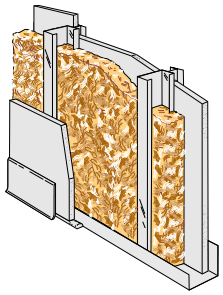


57 STC**
2-hr. partition, double-layer chase wall—3-1/2" THERMAFIBER SAFB on one side in stud cavity—2 layers 5/8" gypsum wallboard Type X ,ea side—1-5/8" 25 ga steel studs 24" o.c. in 2 rows spaced 6-1/4" apart—5/8" gypsum panel gussets or steel run braces spanning chase screw-att to studs—panels appl screw att—joints stag & fin—**UL Des U420—TL-76-156**

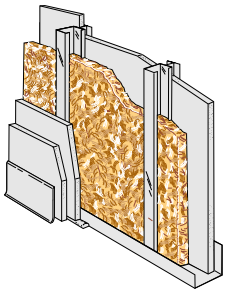


52 STC**
1-hr. partition, single-layer chase wall—3-1/2" THERMAFIBER SAFB on one side in stud cavity—5/8" gypsum wallboard Type X, ea side—1-5/8" 25 ga steel studs 24" o.c. in 2 rows spaced 6-1/4" apart—5/8" gypsum panel gussets or steel run braces spanning chase screw-att to studs—panels screw att—joints stag & fin—**UL Des U420—TL-76-155**

Shaft Wall Systems (Non-Load Bearing)

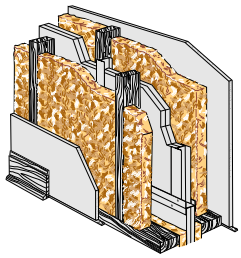


52 STC***
2-hr. shaft wall partition—3" THERMAFIBER SAFB in stud cavity—1" gypsum wallboard liner panels, set between 4" steel C-H studs 24" o.c. one side—3/4" SHEETROCK Brand gypsum panels, ULTRACODE Core, other side—panels screw att—joints stag & fin—perimeter caulked—**UL Des U415 or U492, ULC W508—SA-910913**



47 STC* and *****
2-hr. shaft wall partition—1" THERMAFIBER SAFB in stud cavity—2 layers 1/2" gypsum wallboard Type C core, one side—1" gypsum wallboard liner panels set between 25 ga. steel C-H studs 24" o.c.—joints fin—**UL Des U415 or U438—BBN-750706**

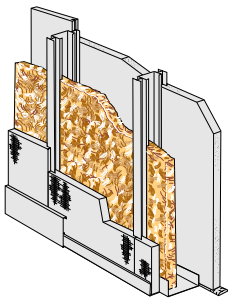
Area Separation Walls (Non-Load Bearing)



60 STC***
2-hr. area separation wall partition—3" THERMAFIBER SAFB on both sides in stud cavities—1/2" gypsum wallboard—two 1" gypsum wallboard liner panels set between one-piece steel H studs 24" o.c.—2 x 4 wood studs 16" o.c. each side on 2 x 4 plates min. 3/4" from liner panels—gypsum panels att with 1-1/4" Type W screws 12" o.c.—joints stag & fin—perimeter caulked—**UL Des U336—TL-88-350**

For more area separation wall designs see page 6:
GA WP-1530 (ref: GA ASW-1100)
GA WP-1545 (ref: GA ASW-1105)

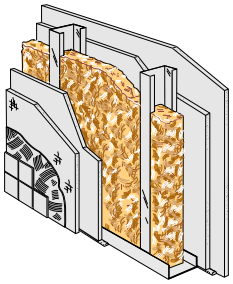
Demountable Partitions (Non-Load Bearing)



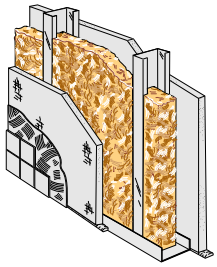
47 STC
1-hr. demountable partition (ULTRAWALL® Partition)—1" THERMAFIBER SAFB in stud cavity—concealed "H" studs 24" or 30" o.c.—3/4" x 24" or 30" bevel edge ULTRAWALL® gypsum panels—joints unfin—perim gaskets—based on 24" panels—**U of C 8-18-67**—based on 30" panels—**U of C 7-23-69—BBN-701216**

*STC values are based on SHEETROCK® Brand gypsum panels, FIRECODE® C
**STC values are based on SHEETROCK® Brand gypsum panels, FIRECODE®
***STC values are based on SHEETROCK® Brand gypsum liner panels

Cement Board Partitions (Non-Load Bearing)

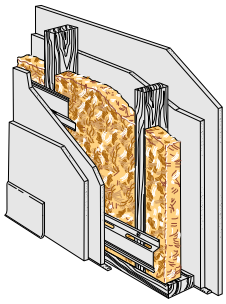


56 STC* and ****
2-hr. partition—double-layer—3″ THERMAFIBER SAFB in stud cavity—2 layer—1/2″ Cemetitious Backer Board (cement board) and 1/4″ ceramic tile—base layer 1/2″ gypsum wallboard Type C core one side—2 layers 1/2″ gypsum wallboard Type C core other side—3-5/8″ 25 ga steel studs 16″ o.c.—cement board att with 1-5/8″ Type S-12 corrosion resistant wafer-head steel screws—joints taped—**UL Des U443—SA-851016**

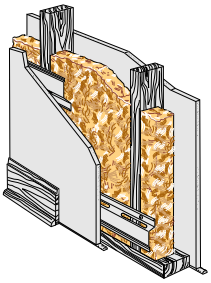


50 STC* and ****
1-hr. partition—single-layer—3" THERMAFIBER SAFB in stud cavity—1/2" Cemetitious Backer Board (cement board) and 1/4" ceramic tile one side—5/8" gypsum wallboard Type C, one side—3-5/8" 20 ga steel studs 16″ o.c.—cement board att with 1-1/4″ Type S-12 corrosion resistant wafer-head steel screws—joint taped—**UL Des U442, ULC W419 or W423—SA-840313**

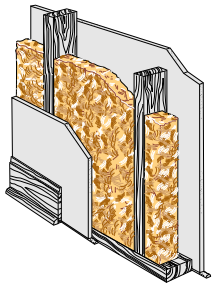
Wood Stud Partitions (Load Bearing)



59 STC*
2-hr. partition—double-layer, resilient channel—2″ THERMAFIBER SAFB in stud cavity—2 layers 5/8″ gypsum wallboard Type C core, each side—2 x 4 16″ o.c.—RC-1 channel or equivalent one side, spaced 24″ o.c.—resilient side screw att—opp side nail att—both base layers appl vert and face layers appl horiz—resilient layers perimeter caulked—joints fin—**UL Des U334—TL-67-239**

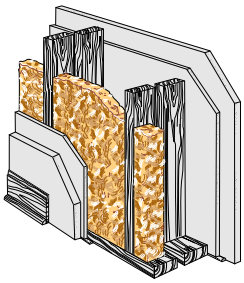


50 STC*
1-hr. partition—single-layer, resilient channel—3″ THERMAFIBER SAFB in stud cavity—5/8″ gypsum wallboard Type C core—2 x 4 16″ or 24″ o.c.—RC-1 channel or equivalent one side, spaced 24″ o.c.—panels app horiz & att to channels—end joints back-blocked with RC-1 channel with 1″ TYPE S screws—opp side direct att with 1-1/4″ Type W screws—joints fin—perimeter caulked—**UL Des U311 and ULC U311—BBN-760903**

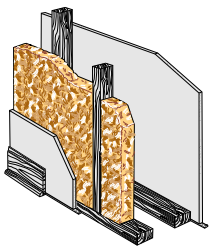


46 STC**
1-hr. partition—single-layer—3″ THERMAFIBER SAFB in stud cavity—5/8″ gypsum wallboard Type X, or gypsum wallboard, water-resistant, Type X—2 x 4 24″ o.c.—panels nailed 7″ o.c.—1-7/8″ cem ctd nails—joints exp or fin—perim caulked—**UL Des U305 and UL Des U314—BBN-700725**

Double Wood Stud Chase Wall



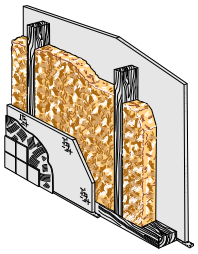
55 - 59 STC
1-hr. partition—Base layer 1/4" gypsum wallboard applied parallel to each side of double row of 2 x 4 wood studs 16" o.c. on separate plates spaced 1-1/2" apart with 4d coated nails, 1-1/2" long, 0.099" shank, 1/4" heads, 12" o.c. Joints staggered 16" on opposite sides.—Face layer 1/2" Type X plain or predecorated gypsum wallboard or gypsum veneer base applied parallel to each side with 3/8" beads of adhesive 16" o.c. and 5d coated nails, 1-3/4" long, 0.099" shank, 1/4" heads, 16" o.c. at top and bottom plates. 4d finish nails, 1-1/2" long, 0.072" shank, 0.1055" heads, driven at a 45° angle 16" o.c. horizontally and 24" o.c. vertically. Joints offset 24" from base layer joints.—Sound tested with 1-1/2" mineral fiber insulation in stud space. Horizontal bracing required at mid height. (Load-Bearing)—**WP 5510**



54 STC**
1-hr. chase wall partition—single-layer—3″ THERMAFIBER SAFB on one side in stud cavity—5/8″ gypsum wallboard Type X—2 x 3 non-load-bearing studs 16″ o.c.—2 x 3 plates 1″ apart—panels screwed or nailed 7″ o.c.—joints fin—perim caulked—est. fire rating based on **UL Des U305 and UL Des U340**—**TL-77-149** (Non-load bearing)

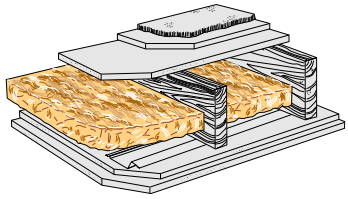
*STC values are based on SHEETROCK® Brand gypsum panels, FIRECODE® C
**STC values are based on SHEETROCK® Brand gypsum panels, FIRECODE®
****STC values are based on DUROCK® Brand cement board panels

Cement Board/Wood Stud Partitions (Load Bearing)

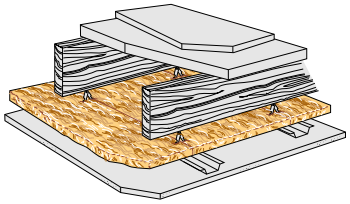


40 STC* and ****
1-hr. partition—single-layer—3-1/2" THERMAFIBER SAFB in stud cavity—1/2" Cemetitious Backer Board (cement board) and 1/4" ceramic tile one side—2 x 4 studs 16" o.c.—board att with 1-5/8" TYPE S-12 corrosion resistant wafer-head steel screws or 1-1/2" hot-dipped galv nails 8" o.c.—5/8" gypsum wallboard Type C core other side—joints taped—**UL Des U329—USG-840314**

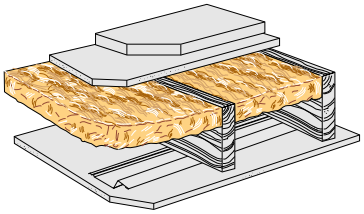
Wood Joist Ceiling Systems (Unrestrained Assemblies)



59 STC/69 IIC*
2-hr. ceiling—double-layer—3" THERMAFIBER SAFB—floor of carpet/pad, 1-1/2" flooring, 1/2" plywood—2 x 10 wd joists 16" o.c.—ceiling of 2 layers 5/8" gypsum wallboard Type C core, over RC-1 channels or equivalent 16" o.c.—**UL Des L541—RAL-TL-90-40/RAL-IN-90-5**

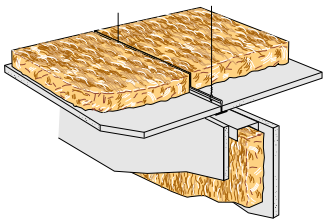


47 STC/40 IIC*
1-hr. ceiling—single-layer—1" FIRESPAN 90 laid over furring channels below joists—1/2" gypsum wallboard Type C core, ceiling— 3/4" T&G plywd—I-shaped wd joist 24" o.c.—met fur chan 24" o.c. clip-att to joist—panels screw att to chan 12" o.c.—joints fin—**UL Des L530** based on TJI® joists—**TL-81-87—IN-81-16**



51 STC/46 IIC*
1-hr. ceiling—single-layer, resilient channel—3″ THERMAFIBER SAFB between joists—1/2″ gypsum wallboard Type C core—1-1/4″ nom wd sub & fin flr—2 x 10 wd joist 16″ o.c.—RC-1 channel or equivalent att to joists—panels att with 1″ TYPE S screws—joints fin—est fire rating based on—**UL Des L514—CK-6512-9**

Mineral Fiber Overlay on Acoustical Ceiling System



48 CAC
Class A ceiling—3" THERMAFIBER SAFB laid over ceiling, extending 4' each side of partition—AURATONE® 5/8" x 24" x 48" acoust clg panels in Susp Exp Grid Syst—contin over partn—**ASTM E84—Sound test USG-820406**

***STC values are based on SHEETROCK® Brand gypsum panels, FIRECODE® C
******STC values are based on DUROCK® Brand cement board panels

Technical Data

THERMAFIBER Sound Attenuation Fire Blankets are available in two densities and nine thicknesses to meet a variety of sound and fire performance needs. Also, Creased THERMAFIBER SAFB, a specially engineered product, is available for certain high-performance sound-rated assemblies.

The table below shows the R-values and densities available for various thicknesses of THERMAFIBER SAFBs, as well as "k" values, sizes, flame spread and smoke developed ratings and density tolerances.

THERMAFIBER SAFB insulation in a typical partition assembly.

Creased THERMAFIBER SAFBs

This specially engineered SAFB insulation is the same composition as regular SAFBs; however, it is 3 in. thick and one inch wider (25 in.* instead of 24 in.). When the insulation is installed into the stud cavity, a vertical slit (approximately one inch deep) is field cut down the center of the blanket.

When the drywall panel is applied over the creased insulation, the blanket is compressed inside the cavity, forcing the edges of the blanket against the studs and the center of the blanket against the gypsum panel. The pressure exerted against the assembly components dampens sound vibrations and boosts the STC rating of the partition.

* A 17 in. wide product is also available for 16 in. o.c. stud spacing.

After conventional installation of steel studs and one layer of drywall, installer inserts 25 in. wide Creased 3-in. THERMAFIBER SAFB into 24-in. wide stud cavity, then slits blankets to a depth of about 1 in. Sound performance is completed through application of gypsum panels.

Product Data

	4 pcf Nominal Density SAFB	2.5 pcf Nominal Density SAFB
R-Value, per 1″ thickness	4.2	3.7
"k" @ 75 °F (24 °C) btu • in./hr. • sq. ft. • °F (per ASTM C518)	0.24	0.27
Widths	16″, 24″	16″, 17″, 24″, 25″
Length	48″	48″
Thickness	1″	1-1/2″, 2″, 2-1/2″, 3″, 3-1/2″, 4″, 5″, 6″
Flame Spread (per ASTM E84, Surface Burning Characteristics)	0	0
Smoke Developed (per ASTM E84, Surface Burning Characteristics)	0	0
Density Tolerance	- 0.5 + 1.0	- 0.5 + 1.0

Notes: Thermal resistance values (R = 1/k) for use in calculating heat transmission coefficients (u) are based on listings in ASHRAE Handbook of Fundamentals (1985). For test data, contact Thermafiber, Inc. Representatives will provide certified test data for published fire, sound and structural systems designed and constructed according to their published specifications.

Note: For the most accurate and up to date product information and data, please visit our website at www.thermafiber.com

Specification Compliance

THERMAFIBER Sound Attenuation Fire Blankets meet the following:

1. Class A interior finish rating per NFPA 101, life safety code.
2. ASTM C665, Type 1, per Federal Specification HH-I-521F.
3. ASTM C553 (SAFB Blankets absorb less than 1% moisture by weight and volume).
4. ASTM C612, Type 1, per Federal Specification HH-I-558B.
5. ASTM E136 (rated noncombustible as defined by NFPA Standard 220 when tested according to ASTM E136).
6. Accepted by New York City Department of Buildings (MEA-207-82M). Approved by the New York City Board of Standards & Appeals for use in New York City under Calendar Nos. 35-66-SM, 173-77-SM, 249-74-SM and 34-66-SM.

Good Design Practices

1. System performance following substitution of materials or compromise in assembly design cannot be certified and may result in failure of sound and/or fire performance under certain conditions. For example, substitution of a low-density glass fiber insulation in place of the THERMAFIBER SAFB may compromise the acoustic balance and therefore reduce the acoustical performance of the system. "See UL directory for a list of approved gypsum board manufacturers."
2. Adjacent assemblies should be designed or selected to be of similar sound control performance. Flanking sound paths should be acoustically treated or eliminated. The combined sound performance of the systems between adjacent spaces will be close to that of the lowest performing element.
3. Proper application of acoustical sealant is critical to effectively seal the wall and reduce sound transmission. For drywall partitions, place a continuous bead of sealant along all perimeter edges between the gypsum panels and the surrounding floor, wall and ceiling elements. Do this on each side of the wall. Also, place a bead of acoustical sealant around ducts, electrical boxes, sprinkler heads, telephone jacks and any other penetrations.
4. Wall Penetrations and Perimeters—Penetrations for windows, HVAC and all wall perimeters must be sealed with acoustical sealant. Insulation must be used behind medicine cabinets and other wall-inserted devices to prohibit passage of sound.
5. When penetrations, such as telephone jacks, electrical outlets, pipes, etc., occur on the opposite sides of a demising wall, offset them by at least one stud cavity.
6. When outlet boxes occur on the opposite side of a demising wall, the backs and sides of the outlet boxes should be acoustically caulked with acoustical sealant; acoustically caulk any gap surrounding the box as well.
7. Vapor Retarders—Vapor retarders normally are placed on the warm side of the wall to prevent moisture from entering the stud cavity. Actual placement of moisture barrier should be specified by a qualified professional engineer, based on local climatic conditions.
8. Ceilings—Insulation should be carefully fitted around—not over—light fixtures. Improperly covering light fixtures with insulation causes heat to build up, possibly resulting in fire. Note that THERMAFIBER Sound Attenuation Fire Blankets may be used in a wide variety of acoustical applications, including those in occupied spaces and ceiling air plenums.

Architectural Specifications

1: General	**1.1 Scope**		Specify to meet project specifications.
	1.2 Qualifications		All materials, unless otherwise indicated, shall be supplied by Thermafiber, Inc. and shall be installed according to current printed directions.
	1.3 Delivery and Storage of Materials		All materials shall be delivered in their original unopened packages and stored in an enclosed shelter providing protection from damage and exposure to the elements. Damaged or deteriorated materials shall be removed from the premises.
	1.4 Design Conditions		THERMAFIBER Sound Attenuation Fire Blankets shall be (1) (2) (3) (4) (5) -hr. fire-rated under simulated field conditions using ASTM E119 Guidelines.
2: Products	**2.1 Sound Insulation**	**2.1.1**	THERMAFIBER Sound Attenuation Fire Blankets (1) (1-1/2) (2) (2-1/2) (3) (3-1/2) (4) (6) inches thick, (16) (24) inches wide, 48 inches long, unfaced, UL-labeled.
		2.1.2	Creased THERMAFIBER Sound Attenuation Fire Blankets 3 inches thick, (17) (25) inches wide, 48 inches long, unfaced, UL-labeled.
3: Execution	**3.1 Sound Attenuation Fire Blanket Application**		Install THERMAFIBER Sound Attenuation Fire Blankets in stud cavities of sound-rated partitions and where required to achieve fire-rated design. Friction fit securely between studs. Butt ends of blankets closely together and fill all voids.
	3.2 Creased Sound Attenuation Fire Blanket Application		Install Creased THERMAFIBER Sound Attenuation Fire Blankets after gypsum panels are applied to the resilient channel and before panels are applied to the other side of the studs. Insert 17″ wide blankets in 16″ stud cavities or 25″ wide blankets in 24″ stud cavities of sound-rated partitions and where required to achieve a fire-rated design. Bow the blankets slightly to fit in the stud cavities. Slit the blankets with a sharp utility knife or hook-bill knife to ease the pressure of the blanket against the gypsum panels when they are installed. Butt ends of blankets closely together and fill all voids.
	3.3		
	See Next Page		

3.3 Floor-Ceilings Application

Install THERMAFIBER Sound Attenuation Fire Blankets between joists in joist cavity or over metal furring channels below joists where required to achieve fire-rated design.

3.4 Ceiling Overlayment Application

Install THERMAFIBER Sound Attenuation Fire Blankets over ceiling panels (1-1/2″ single or double layer over entire ceiling) (3″ over entire ceiling) extending 48″ beyond all partitions and tightly fit around all grillage, hangers and other vertical penetrations.

It's easy to spec Thermafiber SAFB's

1. Go to www.thermafiber.com or log onto your favorite spec service website:
   www.4specs.com
   www.arcat.com
   www.sweets.com
2. Download the 3-Part Specification
3. The instructions will walk you through it.

Additional Information

For Further Information
On these products, including non-standard sizes, contact Thermafiber, Inc.

Thermafiber, Inc. Sales Office:
Phone: 888.TFIBER1
(or 888.834.2371)
www.thermafiber.com

Product Information and Literature
Phone: 888.TFIBER1
(or 888.834.2371)
www.thermafiber.com

Note
Products described here may not be available in all geographic markets. Consult your local sales office or representative for information.

Notice
We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

Safety First!
Follow good safety and industrial hygiene practices during handling and installing all products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read material safety data sheets and related literature on products before specification and/or installation.

Thermafiber®
THE NAME IN MINERAL WOOL™

3711 Mill Street
Wabash, IN 46992-8687

Printed on recycled paper

Made in the USA

TF885/1-08

Printed in U.S.A.