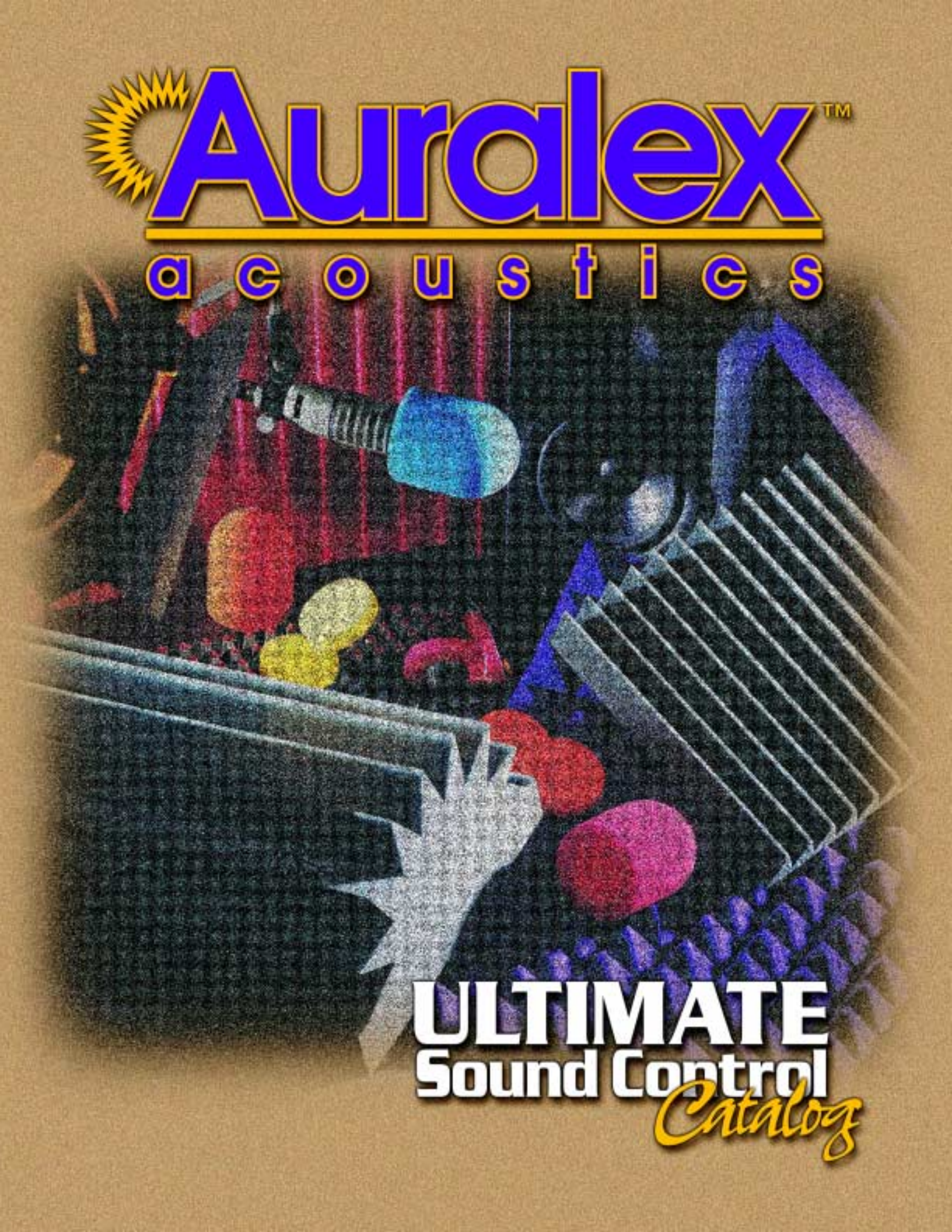
Auralex™ acoustics



ULTIMATE Sound Control Catalog

Welcome to Auralex Acoustics

By Eric Smith, Fearless Leader

In just this brief introduction to Auralex Acoustics, Inc. we hope you'll learn enough about our company & the way we do business that you'll feel comfortable with us *and* our products. I founded Auralex Acoustics back in 1977 because the acoustical products available at that time were way too expensive and had important disadvantages. In fact, they were *so* expensive that even the big-budget broadcast & recording facilities I worked in said they couldn't afford them! I knew there had to be a better way, so Auralex was born out back in my garage. Now, twenty some years later, we've obtained a level of success that stands as proof that the Auralex concept was right on target...then *and* now. Finally, great sound is available to all....not just the rich.

As a person in the market for acoustical consulting or products, you should choose Auralex instead of our competitors because:

★ **Our products offer the best performance regardless of price.**
Having been in the sound reinforcement, broadcast & recording fields ourselves for so many years, we have a good feel for what's needed, what really works and what's "fluff". Over the years, we've fine-tuned our line and now have in place solid products to solve virtually every acoustical problem—regardless of room size, shape or function. Not being ones to rest on our laurels, though, we're continuously involved in R&D to keep Auralex at the leading edge of acoustical control. Many of our products solve ubiquitous acoustical problems in unique—even radical—ways that other companies never thought of, and at prices that fit virtually every budget. Auralex doesn't make "me too" products; if a product is in our line, it's the best it can be at solving a particular problem. You can trust Auralex for solutions that absolutely work—even better than some competing products that can cost many times our prices.

★ **Our broad product line and affordable prices bring world-class acoustics within the reach of any budget.**
Some folks question how our products can truly be the best on the market, yet be so reasonably priced. It's because we work on shorter profit margins than our competitors & subscribe to the Henry Ford business model. (Mr. Ford said he'd rather sell a million cars for a dollar apiece than sell one car for a million dollars.) Why did he say that? Because he knew satisfied customers would spread good word of mouth about his products and also return themselves to buy more from him in the future. This methodology really works: Auralex gets way more referrals and repeat business than any MBA school textbook says a company should. Since satisfied customers have proven to send us their friends, we operate in such a way as to gain more satisfied customers. (Makes sense, doesn't it?) This kind of long-term thinking got us where we are.

★ **The Golden Rule is alive and well at Auralex Acoustics.**
These days it takes more to succeed than just having the best products and attractive prices. You've gotta' treat people fairly....and we do! This is why you see Auralex spoken of so highly in Internet chat rooms and why we get such kind comments from our customers, many of whom have been repeat Auralex customers for years. When you do business with Auralex, you can take comfort in knowing that you're not only in good company, you're making the wisest possible product choices and are in good hands.

It's one thing to say you've got your customers' best interests at heart; it's another thing to prove it like we do. For example, customers often end up spending even less for Auralex products than they thought they needed to. There are a couple of reasons for this. First, our products are way more effective than others on the market so you can simply get by with using less of ours than you would some competing knock-offs. Second, we're in this business for the long haul, not short-term profits, so we and our valued Auralex dealers make sure our customers get *only* the exact materials they need—nothing more—while providing friendly service & lots of honest advice. We absolutely refuse to sell a customer something we know he doesn't need or that won't do the job for him, so we've literally never had an Auralex customer complain that he didn't get his money's worth.

★ **Famous users trust Auralex and so should you.**
Ask your sales representative or browse our website (**www.auralex.com**) for our constantly updated **Famous Clients List**. These folks can afford virtually *any* acoustical products they want at *any* price. **They choose Auralex**—many repeatedly. So should you.

After reading this brochure, our booklet *Acoustics 101*, talking with your dealer, and perhaps visiting our website, we know that you'll understand that no other acoustical products or consulting company can provide you with the same unique mix of pricing, product quality & added value that Auralex has for over two decades. Welcome aboard...we're glad to have you with us!

Sincerely,

Eric T. Smith
Founder & President
Auralex Acoustics, Inc.

Contents

IMPORTANT NOTE: Unless otherwise noted, flame and absorbency data mentioned applies to our charcoal-colored Auralex products. The Federal Trade Commission has jurisdiction over foams & considers no existing testing method or standard regarding flammability to be an accurate indicator of the performance of cellular plastic material under actual, "real world" fire conditions. Any test results listed are intended only as a barometer of the reaction characteristics of the material under very specific and controlled laboratory conditions. Any terms used in the description of our raw foam's characteristics in the lab are not intended to be a representation of Studiofoam under actual fire conditions. Always consult your local building codes before purchasing and installing any acoustic foam product regardless of vendor.

By purchasing any product from Auralex or its dealers, you agree to hold Auralex or its Dealers harmless with regard to any and all claims arising from the use and/or misuse of these products, no matter how occasioned, including personal injury, fatality and loss of income, either incidental or consequential. Seller's sole remedy to buyer if awarded shall be replacement of proven defective product.

Specifications and prices subject to change without notice. Names and logos used are property of their respective owners and all trademarks are acknowledged. Auralex reserves the right to refuse sale to anyone it deems inappropriate for whatever reason. The laws and courts of the State of Indiana shall govern all transactions and attorney fees shall be reimbursed to seller in the event of litigation.

How & Why To Buy Acoustical Treatments

The Basics

In the beginning, there was perfect sound, then man invented rooms & fouled everything up. The end? Luckily, no.

It's been said that the most perfect recording environment is the great outdoors. But since it's not feasible for most of us to lug our instruments and recording gear outside, let alone find a setting quiet enough, the next best thing is to acoustically treat our rooms so that they don't mangle the sound we record and/or listen to in them. (Another important component of adequate sound control is sound transmission to and from neighboring spaces.)

Doin' The Wave

Sound waves generated in a room radiate out to the room's boundaries, are reflected & then interact with each other, much as do ripples in a pond. Visually the effect can be mesmerizing; aurally the effect is guaranteed to be undesirable. The worst offenders are hard—and thus reflective—parallel walls. Less detrimental, but still in need of attention, are ceilings, especially flat ones.

Famous audio test guru Julian Hirsch says, "sound...is affected (often severely) by room boundary reflections." Ross Vannelli, brother of popular singer/songwriter Gino and a whiz-bang engineer/producer/songwriter in his own right, says of room tone (the reflected sound that allows your ear/brain mechanism to "sense" the space a sound was produced in), "There's no knob for it."

Unless properly controlled, reflected sound is detrimental to accurately recording or monitoring in sound-critical spaces. It is for this reason that the field of acoustics has become so important and why some acoustical consultants are literally paid *millions* of dollars for their work on *single* projects.

But how do we accomplish this sound control that is so vitally important? Generally, by means of absorption and diffusion of the sound waves generated in the room.

Choices In Methodology

There are some who believe that making a room's surfaces totally absorbent or totally diffusive is the only way to make a room sound "good," but this is most often not the case. While it's true that some rooms' acoustics are best controlled exclusively with specific types of treatments, the really great sounding rooms tend to be ones with a proper *blend and placement* of absorption, diffusion & low frequency control. These rooms exhibit a pleasing small degree of natural ambience, but no flutter echoes or false bass buildup that could color the sound being recorded or monitored in them.

There are some folks who prefer a more live, yet controlled, performance environment. The best way to achieve this sort of acoustic character is to use corner bass trapping, thinner or less absorbent materials on the walls & ceiling and extra amounts of 3D diffusion. This treatment package imparts a controlled spaciousness to sound and will yield a room character that isn't too "dead." Diffusion is also often recommended for control room rear walls (opposing views can be found in the section about bass trapping). We have other products, like Sunburst Broadband Absorbers, which look great, absorb really well overall and allow you to gain significant sonic control—especially in the low frequency department—without excessive dryness. Further discussion about diffusion can be found beginning on page 14.

There are places, however, like radio studios and voiceover booths, where a very dry, controlled environment is *definitely* called for. Drying these rooms out ensures that when a talent is speaking into an open mic, all you hear is an up-close, direct, present sound—you don't hear a bunch of detrimental room ambience. Listen to network-quality voiceover work—you virtually never hear "room."

As listeners, we've become so accustomed to this type of sound quality that when we hear a person speak on television & radio, we expect their voice not to sound like they're in a cave. On those occasions when it sounds like they *are* in a cave, the ambience really sticks out like a sore thumb & sounds cheesy to us. My point being, if you desire liveness in your performance space, it must be (a) well-controlled in order to sound pleasing & professional, and (b) appropriate for your space's intended use.

How Dry Is Dry Enough?

Luckily, except as noted in the previous paragraph, many rooms' acoustical needs can adequately be provided for by periodic (spread) absorptive treatment. For those of us who (a) don't understand the intricacies of tuning a room or (b) don't have the budget to really go the extra mile, this is good news!

If you're the sort who wants better sound without excessive dryness, you'll appreciate knowing that our Studiofoam Wedges, Pyramids & Metro panels generate copious amounts of beneficial diffusion by virtue of their geometric surface design features. So, if the whole subject of diffusion is frightening, undesirable or just plain foreign to you, don't worry. Your space can sound great even if you concentrate on our acoustic foam treatments and leave the intricacies of diffusion for the physicists or your next studio.

Interestingly, the BBC studied the effects of spreading absorbent materials around a room instead of putting all the materials on one wall or the ceiling and found that spreading the material around almost *quadruples* the amount of absorption gained! This is why we often recommend cutting our 2'x4' Studiofoam panels into 2'x2' sections and spreading them apart on the walls & ceiling (with the exception of the front end of your room—where your monitors are—which should be heavily absorbed).

Just how you cut up your Studiofoam and spread it around is based to some degree on what appearance you desire (see "Installation Tips" on page 22), so come up with a treatment scheme you enjoy the looks *and* sound of.

Another added plus to spreading your acoustical foam around is that you get some extra beneficial diffusion off the exposed edges of the absorbent panels, so rooms treated this way tend to have pleasing, well-controlled sound without being too dry for the performers' liking.

Choices In Materials

The two most commonly-used absorbent materials are high-quality acoustic foam and specialized acoustic fiberglass (no, not the stuff you buy at the hardware store.) For brevity, at times we'll generically call acoustic foam just plain "foam", although there are very dramatic differences in cell structure & density between acoustic foam and the thousands of other types we could manufacture. This is why you can't just run down to WalMart and buy mattress pads with which to treat your studio. Acoustic foam is well-suited to alleviate slap and flutter echo, the two most common problems in rooms not specifically designed for music recording & performance. In fact, foam can turn even the most cavernous warehouse or gymnasium into a suitable acoustic environment. *Think about that.* Auralex Studiofoam lets you record good, clean, world-class sound in virtually any room, regardless of shape or size. You'd be amazed if you could see—and hear—what some of the spaces used to record CDs, commercials and movie soundtracks would look and sound like without acoustic treatments!

Features & Benefits Of Acoustic Foam

Foam is easy to work with, simple to trim to size and cost-effective for virtually any budget. Foam will improve the sound picked up by your microphones and give you a more accurate monitoring environment, thus ensuring your recordings will sound ("translate") better wherever they're played. In a listening or viewing space, foam allows you to hear recorded works the way the artist intended without your room messing with the sound. While it is not a sound barrier technically, foam will knock down the ambient sound level in your room, making it less likely that you'll disturb those nearby. Studies have shown that foam (the thicker, the better) can contribute up to 10dB of extra sound isolation. Foam makes your environment more comfortable to be in, so you'll find yourself being more productive, at ease & creative, and in general reaping more enjoyment out of the space. Many folks report improved concentration and hearing acuity in well-treated spaces.

Different Strokes For Different Folks

Foam is available in a variety of thicknesses. Which size is correct for your particular room is determined by a variety of factors including sound pressure levels (volumes) in the room, size and placement of monitors, types of sound being generated in the room, ceiling height, the materials used to construct the room & its surfaces, the amount of glass in the room, whether there is carpet on the floor (& over what type of pad it's installed) and other factors, not the least of which may be budget! Your dealer or the Auralex Consulting Group will ask you appropriate questions so they can recommend the right solutions for your specific situation.

Based on physics, the thicker the foam, the greater the amount of overall absorption, but especially toward the low end of the frequency spectrum. The most common thicknesses of acoustic foam are 1", 2", 3" & 4". Auralex also has proprietary foam bass traps, the VENUS, Metro LENRD and LENRD, that're easy-to-install and phenomenally effective at simply incredible prices (go ahead.....compare!). Not only that, the Venus, LENRD & the Metro LENRD look really cool & compliment the appearance of the Studiofoam you'll be putting on your walls (subliminal hint).

Smoke 'Em If Ya' Got 'Em

An important consideration, but not the ultimate one, when choosing a foam is its degree of flame retardancy. Some foams are tested to pass the UL-94HF1 test, which was previously the standard, but we feel a more rigorous and current test is the California firecode specification #117. Both tests will indicate that a foam is designated Class B, yielding smoke density and flame spread ratings within certain guidelines. Class B is sufficient to appease many inspectors except when the foam is for use in certain public buildings and locales which may require a Class A foam, which some companies offer and most of which lacks the range of benefits of Studiofoam. I'm sure you'll agree that flammability is never a good thing, so make sure the foam you're purchasing is *at least* Class B (be careful—one popular brand isn't flame retardant at all!), verify the vendor's claims and always consult your local building codes *before* purchasing any foam product.

Ask The Man Who Owns One

One customer told us that his room, now treated with Studiofoam, sounds "at least 1000% better" than when he had another brand on his walls. Another customer told us that he put a match to this competitor's sample and it literally flamed so quickly he barely could drop it fast enough to avoid catching his sleeve & arm on fire.

Same As It Ever Was

Another important quality of foam is its consistency piece to piece, box to box. While all manufacturers quote their dimensions as being ± some fraction of an inch, some name brand foam sheets are virtually *never* consistent, while others are *guaranteed consistent* by their very design (hint: Studiofoam Wedges, Pyramids & Metro). Inconsistent sheet sizes or pattern skews lend a haphazard appearance to the finished installation, which you'll have to live with for years, so now is the time to decide that you want your installation to *look* as professional as it *sounds*.

Special Anti-Disintegration Ingredient Added For Your Protection

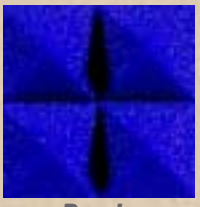
(Or, No...All Acoustic Foams Are Not Created Equal)

You know how the foam surrounds on a certain loudspeaker maker's woofers are renowned for disintegrating? The same thing happens to virtually all of the other foams on the market, especially with exposure to environmental extremes, harsh lighting or repeated physical contact, because none of them uses our proprietary chemistry. Truly, no products on the market are better suited to giving you top-notch sound *and longevity* than absorbers, diffusors & bass traps from Auralex. There's a large nightclub in Texas whose patrons frequently find (another brand of) foam in their cocktails because it's disintegrating & literally falling from the ceiling! So, make sure your foam will last as long as your studio. Auralex has invested *tons* of $ in chemistry and R&D over the years to ensure that our foams last a long, long time! It is for this reason we can make the guarantee that our foam will never crumble. By the way, foam that wears well over time (such as ours) is pretty much a stick it up and forget it item, but if you feel the need you can vacuum it every couple years. (It'd have to get awfully dirty, though, for the cells to clog up with dust like some people think they do!)

Color Selections

Once you've decided on a foam with the size and flammability specifications you desire and/or require, it's time to choose a color that complements the decor of your studio. Almost all manufacturers' standard color is a deep charcoal gray, but Auralex has 11 other colors, too, ranging from mild to wild! In case your foam gets damaged or needs to be trimmed to fit your room, make sure your foam is colorized at the chemical level (as ours is) and not just *surface painted*, as many other brands are. Be sure to ask the manufacturer how the color will wear, because all foams are subject to change due to exposure to ambient light of various types (halogen & fluorescent especially) as well as environmental factors like humidity, sweat, temperature and cigarette smoke. (Our exclusive formula greatly minimizes these concerns.) Unless you're made of money or just plain love installing foam you should make sure in advance that the foam you choose will stand up to poking fingers and the routine wear and tear of daily life. Surprisingly, this isn't a "done deal"....some brands can turn brittle & crumbly in as little as just a couple of months after installation! On the other hand, we've got Studiofoam over fifteen years old that's just as soft and pliable as the day it was made. That's the Auralex difference!


Charcoal Gray

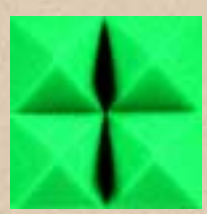

Purple

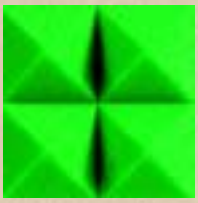

Plum


Beige


Brown


Burgundy

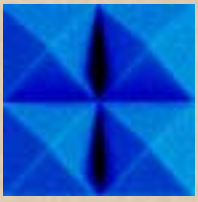

Teal


Kelly Green


Forest Green


Red


Orange


Blue

NOTE: Color samples may not be accurate due to the limitations of the printing process.

A Rainbow of Choices

Our acoustic foams are available in a wide variety of colors which other companies' products are not. Charcoal gray is our most popular because it looks sleek & hi-tech, blends well with a variety of decors and hides environmental effects the best.

Not all of our colors are available all the time, so check availability before ordering & please allow "up to" 3 weeks lead time for production in case we run short. (Most orders are filled within 72 hours from receipt of payment.)

Before ordering, be aware that all foams, but especially lighter-colored ones, can be susceptible to color changes depending on factors specific to your environment, which we obviously can't control or guarantee the effects of.

It is for this reason that we cannot warrant our acoustic foams' color longevity.

Pocket Protectors... And A Whole Lot More!

Auralex Acoustics Consulting and Design Services

Over the course of more than two decades, the name Auralex has become synonymous with high quality, affordable acoustical treatment products for a wide range of facilities. Auralex is proud to announce that we're introducing an expanded range of consulting and design services at the competitive prices you've come to expect from us.

Why Do You Need Acoustical Consulting?

Unfortunately, acoustics are often ignored or overlooked during a facility's design phase, then the consultants are brought in after-the-fact—when the pot of gold has been drained—and still expected to save the day! Also, acoustical treatments are often left out of a job because of budget limitations & because people can't "see" acoustical differences.

The construction of an increasing number of acoustically sensitive spaces and the rapid advances in sound reproduction technology have given Auralex the ability to offer a wider range of products and services. We have many combined years of expertise to offer to the architect, the consulting engineer, the contractor and the builder, and are prepared to assist with projects from conceptualization to finished design to completed project. Plus we offer a wide range of products that allow you to achieve the sound you need.

Why Choose Auralex Acoustics Consulting & Design Services?

Auralex keeps up with the latest in CAD software and complements room designs with high-tech renderings and "walk-throughs". We use the most up-to-date acoustical modeling software so we can "hear" what your design will sound like and identify possible problems before a single board is nailed. We use the most current measurement equipment for on-site analysis, but most importantly, we have personnel with the knowledge and expertise to bring everything together in a thorough, yet cost-effective, way.

If you have an acoustical problem or want a design done right *the first time*, put your trust in the world leader in acoustical products...*and services*...Auralex Acoustics.

Okay... So What Services Are Available?

The services we offer in the area of acoustical consulting & design are:

Acoustical Consulting for Existing Rooms*

- Room Acoustics (no room is too large or too small)
- Room Isolation
- HVAC Noise Control
- Industrial Noise Control
- Other noise & acoustical problems

Complete Facility Design**

- Recording Studios
- Broadcast Facilities
- Audio/Video Editing Rooms
- Mastering Facilities
- 5.1 Surround Rooms

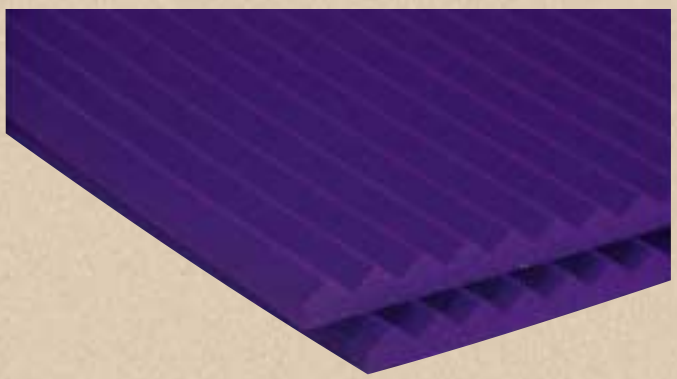
On-Site Acoustical Consulting***

- Measurement of room response for modes and anomalies
- Measurement of noise levels
- RT and speech intelligibility measurements for large rooms
- On-site evaluations and recommendations

Estimates are always free, so give us a call at (317) 842-2600 *before* you design your next classroom, auditorium, church, arena, restaurant, conference room, call center, studio, home theater or other sound critical space. You'll be doing yourself a favor you'll appreciate for years to come!

* Charges may apply based on the complexity of the project. Call for details.
** Minimum charge $1,000.00 per room. Please call for an estimate.
*** Minimum hourly charge of $175.00 applies, plus expenses. Please call for an estimate.

Studiofoam

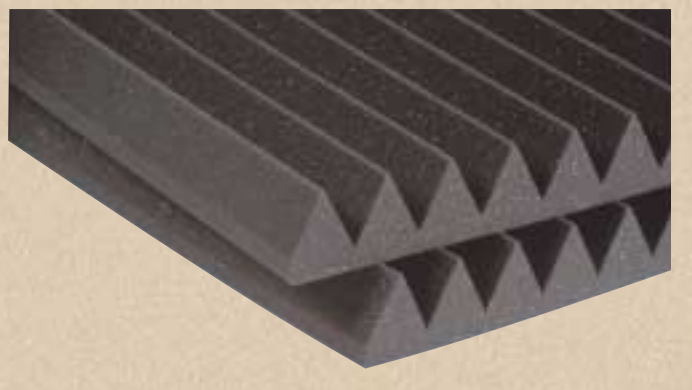


1" Studiofoam Wedges

Perfect for those environments that require good sound control, but where total dryness isn't required or desired. 1" Studiofoam works most effectively on mid and high frequency sound waves and may be used to treat walls or, most commonly ceilings (especially if they aren't parallel to the floor), even when the walls are treated with thicker Studiofoam. 1" Studiofoam absorbs as well as some competing 2" products! If your budget is a bit "thin," 1" Studiofoam might be just the ticket for you!

Specifications:

NRC: *.50* ***Qty. Per Box:*** *20 panels* ***Coverage:*** *160 sq. ft.*
Recommended Adhesive: *2 Foamtak or 5 Tubetak per box*



2" Studiofoam Wedges

2" Studiofoam Wedges are our most popular seller & our best overall performer! Use 'em to treat small- to medium-sized areas including vocal booths, control rooms and studios. They effectively kill standing waves and flutter echoes and, when used in conjunction with our LENRD or Venus Bass Traps or our Sunburst Broadband Absorbers, can effectively tame the full frequency bandwidth in virtually any room. 2" Studiofoam is quite simply the workhorse of the industry and is your safest bet if you're tuning your room yourself without the help of a professional acoustician.

Specifications:

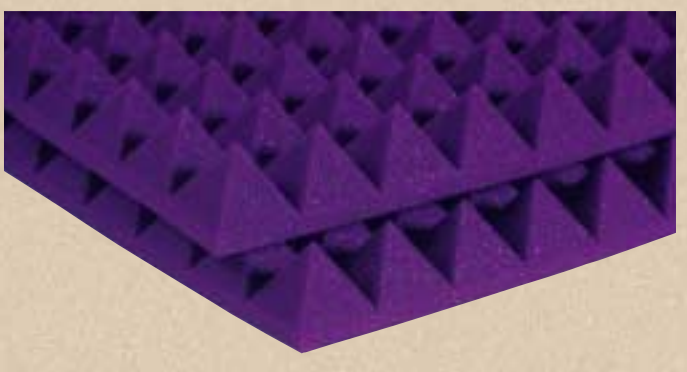
NRC: *.80* ***Qty. Per Box:*** *12 panels* ***Coverage:*** *96 sq. ft.*
Recommended Adhesive: *1 Foamtak or 3 Tubetak per box*

Studiofoam™ Wedges™

They're our most popular style, outperform by up to 60% other brands that cost much, much more and are the product on which Auralex was built.

Each sheet is cut the same by precision German machinery for clean-looking installations. What's that mean to you? It means every sheet is functionally identical, so you won't find any innies and outies here *or* have to hassle with the out-of-square panels some other companies sell! Our proprietary anechoic wedge cut's been optimized to offer superior absorption, a sleek, high-tech look & minimal installation seaming. Studiofoam Wedges are available in all the Auralex colors in 1", 2", 3" & 4" thicknesses and 2'x2' or 2'x4' sheets.

Consistency, increased flame retardancy, numerous color choices, industry-leading absorption and our super long-lasting formulation add up to make Studiofoam Wedges the hands-down value leader in the acoustics marketplace. If you buy any other brand, you just aren't getting your money's worth!

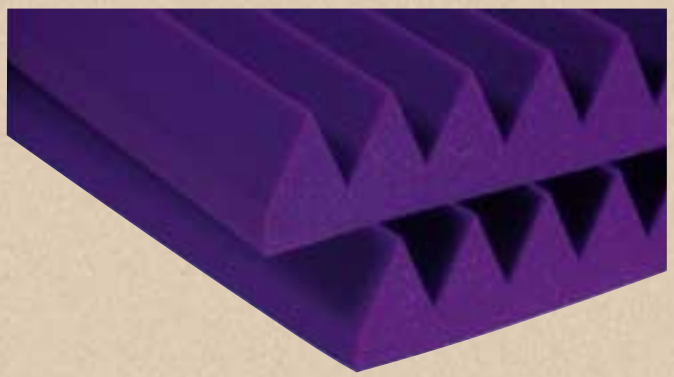


2" Studiofoam Pyramids

Use these to treat small- to medium-sized areas including iso booths, control rooms and studios. They effectively kill standing waves and flutter echoes and, when used in conjunction with our LENRD or Venus Bass Traps or our Sunburst Broadband Absorbers, can effectively tame the full frequency bandwidth in virtually any room. 2" Studiofoam Pyramids offer a bit of extra diffusion and slightly less absorption than 2" Studiofoam Wedges, so they yield a less dry-sounding space with a bit more "air."

Specifications:

NRC: *.70* ***Qty. Per Box:*** *12 panels* ***Coverage:*** *96 sq. ft.*
Recommended Adhesive: *1 Foamtak or 3 Tubetak per box*

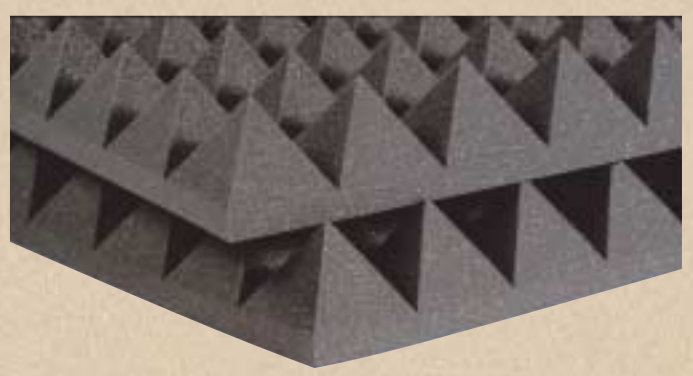


3" Studiofoam Wedges

Twice as absorbent as 2" at 125Hz, 3" can even do many of the same things 4" can do (especially when used with LENRD or Venus Bass Traps) and can provide a well-controlled, more accurate sound in any size room. Recommended for rooms with higher SPLs or more low frequencies such as drum or voiceover booths. Rooms have more low-end problems than some folks acknowledge, so if you step up from 2" to 3" you'll benefit from the extra low-end absorption 3" Studiofoam Wedges offer.

Specifications:

NRC: *.90* ***Qty. Per Box:*** *8 panels* ***Coverage:*** *64 sq. ft.*
Recommended Adhesive: *1 Foamtak or 2 Tubetak per box*



4" Studiofoam Pyramids

As with 4" Studiofoam Wedges, recommended for larger spaces, rooms with pronounced low frequency problems or where sonic accuracy is mandatory & stronger absorption is required. Having 4 sides exposed on each pyramid also yields more sound wave diffusion, which is desirable in some spaces. Thus, 4" Studiofoam Pyramids will yield less overall dryness than 4" Studiofoam Wedges.

Specifications:

NRC: *.95* ***Qty. Per Box:*** *6 panels* ***Coverage:*** *48 sq. ft.*
Recommended Adhesive: *1 Foamtak or 2 Tubetak per box*

4" Studiofoam Wedges

Recommended for medium to large areas like concert halls, gymnasiums & churches, rooms with pronounced low frequency problems or where sonic accuracy is mandatory & maximum absorption is required (e.g. voiceover or drum booths, forensic audio labs & mastering rooms). 4" Studiofoam Wedges provide 3X the low-end control of 2" and can effectively tame even the worst sonic anomalies. In some instances, using 4" Studiofoam can lessen the need for significant dedicated bass trapping.

Specifications:

NRC: *1.10* ***Qty. Per Box:*** *6 panels* ***Coverage:*** *48 sq. ft.*
Recommended Adhesive: *1 Foamtak or 2 Tubetak per box*

Studiofoam™ Pyramids™

Studiofoam Pyramids are a perfect combination of precision appearance and great sound control! Based on their design (i.e., there are valleys running *both* directions), Studiofoam Pyramids offer increased installation versatility (their pyramids are 2" or 4" wide, so you can do cuts 1/2 foot, 1 foot, 2 feet, etc.) & minimal seaming, supply a bit of extra diffusion due to their 4-sided geometry & will give your space tasteful, upscale looks *and* sound. They perform well and look absolutely fabulous!

Studiofoam Pyramids are manufactured in 2" and 4" thicknesses in 2'x2' or 2'x4' panels and are available in all the Auralex colors. They pass through our specialized saw twice, so they do cost a bit more than Wedges, but most people who see 'em think they're worth the extra dough! Based on physics ('cause they have less foam mass than Studiofoam Wedges), Studiofoam Pyramids perform about 85% as well as Studiofoam Wedges, but still outperform competing brands and offer all our other important formulation advantages.

Studiofoam

NEW!

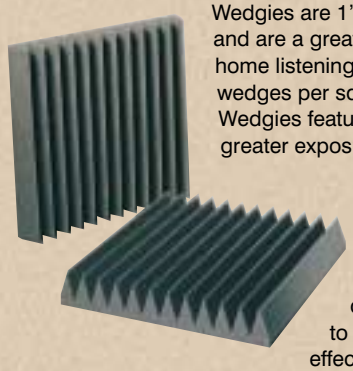
2" Sonomatt™ Convoluted Acoustic Foam

The perfect product for the budget-conscious, yet acoustically-discerning customer. Sonomatt is cut in the industry standard "eggcrate" style to keep its price low & absorbs almost as well as 2" Studiofoam Wedges, but it *still* outperforms competing "premium" brands that cost way more! Due to the manufacturing process we use, Sonomatt's dimple pattern will not be square to the edges of the panels, so installing them side by side may not be advised from a visual consistency standpoint. Sonomatt may be a great choice for those of you who wish to cover your absorptive material with acoustical cloth.

Specifications:

NRC: *.70* ***Qty. Per Box:*** *12 2x4s (96 sq. ft.) or 2 4x8s (64 sq. ft.)*
Recommended Adhesive: *1 Foamtak or 3 Tubetak per box*
Available in 2'x4' or 4'x8' panels in charcoal gray and vivid purple.

Wedgies™

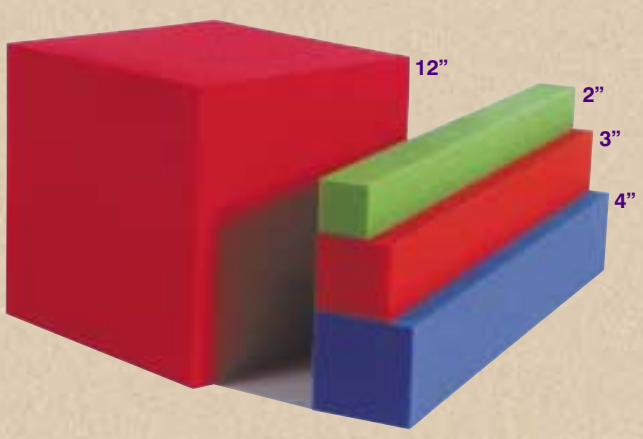


Wedgies are 1' squares of 2" thick Studiofoam and are a great solution for spot treating studios, home listening rooms and more. With more wedges per square foot than 2" Studiofoam, Wedgies feature maximized surface area for greater exposure to sound waves. Wedgies are a great solution for small flutter echo problem areas and, when spread apart, yield beneficial diffusion off their exposed edges. A famous designer used Wedgies and called to tell us they were even more effective than he'd hoped they'd be, so you know you can trust them to tame your space! *Available in charcoal gray only.*

Specifications:

NRC: *.75* ***Qty. Per Box:*** *20 or 96* ***Coverage:*** *20 or 96 sq. ft.*
Recommended Adhesive: *1 Foamtak or Tubetak/20 sq. ft. box;*
1 Foamtak or 3 Tubetak/96 sq. ft. box

CornerFills™ & CornerFill Cubes™



CornerFills are long sections of flat-cut Studiofoam that are beneficial in two ways. Acoustically, they smooth out excess low frequency energy that congregates in room corners. Aesthetically, they give you smooth, clean edges against which to butt your Studiofoam, SonoMatt, Sunbursts or Venus Bass Traps for a more professional appearance. They're highly recommended & very affordable!

CornerFill Cubes are a terrific way to finish out a trihedral corner where three LENRD Bass Traps come together. Simply install the Cornerfill Cube at the wall/ceiling juncture, then butt your LENRDs up to it for a finished, professional look and tons of additional low frequency absorption.

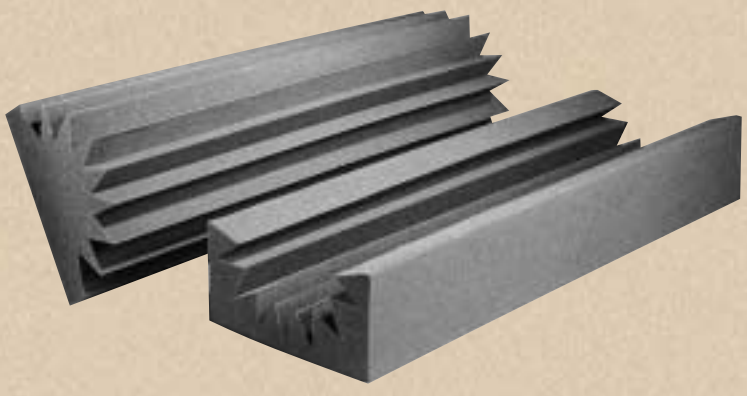
Specifications:

CornerFills
2"x2"x24": *36 per box (72 lineal ft.)*
Recommended Adhesive: *1 Foamtak or 2 Tubetak*

3"x3"x24": *16 per box (32 lineal ft.)*
4"x4"x24": *9 per box (18 lineal ft.)*
12"x12"x24": *1 per box (2 lineal ft.)*
Recommended Adhesive: *1 Foamtak or 1 Tubetak*

CornerFill Cube
Size: *12"x12"x12"* ***Qty. Per Box:*** *2*
Recommended Adhesive: *1 Foamtak or Tubetak per box*

Sunbursts



Sunburst™ Broadband Absorbers

Sunbursts are an Auralex exclusive and are truly one of a kind. Their unique male/female configuration helps solve quite a wide range of acoustical problems. Because they offer a significant amount of both low frequency control & broadband absorption, they work well in rooms that don't have corners available for treatment with LENRDs or where you don't need or desire large expanses of absorbent wall or ceiling treatment. The female Sunbursts are often cut in half & used as "mini-LENRDs" or to frame Studiofoam-mounted areas. They look great & deliver truly linear broadband performance!

Specifications:

NRC: *1.10 (male yields 1.08 at 125Hz)* ***Size:*** *1'x4'x7.5"*
Qty. Per Box: *4 males & 4 females (32 lineal feet)*
Recommended Adhesive: *1 Foamtak or Tubetak per box*

What is an "NRC?"

You can judge a foam's absorptive effectiveness by studying its NRC, or Noise Reduction Coefficient, an average of a foam's absorption at various center frequencies ranging from 125Hz to 4kHz. There is no absolute number that indicates total absorption, so it's possible for a foam's NRC to be well over 1.00 if it is a very good absorber. There are various labs around the country that are certified to do acoustic testing, but it should be noted that not all labs yield accurate numbers, as proven by the blind, round-robin testing periodically performed by the governmental certifying agency. Also, some foam companies use a nonstandard method of computing their products' NRCs, so it's important to know ***a)*** *which lab did their testing and* ***b)*** *the formula they use to do their computations. Rest assured, our ratings are dead-on accurate and we perform no funny math!*

All of our foam products are tested at an independent, unbiased acoustical laboratory... the oldest, most reliable lab in the country. We insist on using only the very best testing facility because we believe our customers deserve the most accurate absorption coefficient information possible.

The Sunburst-360™ Eclipse™ Acoustical Environment

"We didn't invent the modular acoustic subspace. We just perfected it."

Sunburst-360s are wedge-cut, elongated, stand-mounted absorbers that offer adaptability and, perhaps most importantly, affordability. When placed around a vocalist, instrumentalist, voice talent or control room mix position they form an **Eclipse Acoustical Environment** (see array above), yielding superior broad bandwidth control of reflected sound waves in the *nearfield* and low frequency waves in the room *in general*. Sunburst-360s are so linear in their absorption that they exhibit a deviation of only ±1.9 Sabins (that's hardly any!) across the *entire test frequency spectrum* from 100Hz to 5000Hz! This is the linear absorber the acoustics marketplace has been missing all these years!

The custom-made wooden stand, which measures 16" across, features a black lacquer, furniture-grade, semigloss finish for a professional appearance. With a Sunburst-360 mounted on it, each stand measures 5'4" tall, but the Sunburst-360 may be slid up the rod to a height of 7'4" or so depending on your acoustical needs. Sunburst-360s are available in all 12 Auralex colors.

We also include—free of charge—Sunburst Females (see Sunburst Broadband Absorbers pic at the upper left) that encompass the Sunburst-360s during transit and can then be mounted to your room surfaces as effective broadband absorbers/bass traps, affixed back to back as freestanding gobos, cut in half to be used as "mini-LENRDs" & more. The Females absorb almost identically to the 360s, so please don't think of 'em as throwaways!

If you're a big wheel, a heavy hitter or....any other metaphor that designates you as knowledgeable, experienced & acoustics savvy....you may be thinking the Eclipse Acoustical Environment reminds you of another company's array. Correct, but ours has TONS of advantages....way too many to list here....so ask your dealer for the Eclipse Acoustical Environment cut sheet or visit our website for the full lowdown. You'll be glad you did!

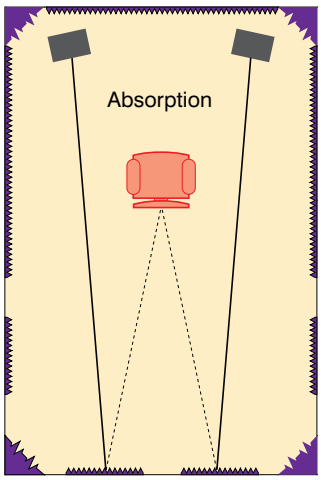
Specifications:

Shipped *2 Males & 4 Females per box; Males measure 12"x15.5"x4'. Stands and instructions also included.*

Bass Traps

Catch Some Waves... Absorb Some Reflections!

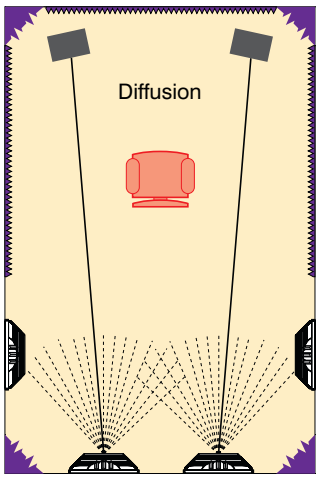
Sound waves emanate out from their sources & strike room boundaries in predictable ways. Since tons of studies have shown that reflected sound is inherently inaccurate sound, controlling reflected sound is the key to making our spaces sound "good."



While it's true that we all may have our own ideas as to what's a "bad" mixer, a "bad" loudspeaker or a "bad" microphone, I'm sure we can all agree on what a bad-sounding room sounds like. Two common examples of bad-sounding rooms that you're probably familiar with are gymnasiums & tiled bathrooms.

The good news is that by implementing the proper acoustical treatments, we can make even the worst-sounding room good enough to yield world-class sound. Controlling reflections yields truer sound and allows the "real" sound of an instrument, voice or loudspeaker to come through. The two methods of controlling sound are absorption and diffusion.

Hard room surfaces are responsible for the most detrimental reflections like standing waves, flutter echoes & low frequency room modes. Ever clapped your hands and heard a ringing, repeating, hollow sound? Say hello to your arch rival, Mr. Flutter Echo. Ever been in a conversation with someone or played music in a room where the low frequencies were overpowering the rest of the sound, making for poor intelligibility? Meet Mr. Room Mode & his nasty sidekick, Low-end Buildup.



The three types of sound wave reflections are called axial, tangential and oblique modes, which relate to which direction in a room sound is being reflected from one hard surface to another. The worst of these types is the dreaded axial mode, which means sound is being reflected from wall to opposing wall or floor to ceiling. Corners cause us a lot of problems, too, boosting the apparent amount of bass in our rooms by 9dB, making us think we have **3 times** as much bass as we actually do. So, corner bass trapping is absolutely vital to smoothing out any room's sound. (If you don't have any 90° corners available for treatment, talk with us or your dealer so we can advise you how to best achieve adequate bass absorption in your room.)

LENRD™ Bass Traps

In our world, rooms mess with our sound. Corners cause bass bumps in our rooms' frequency response. Critical monitoring is difficult in all but the most costly rooms. Extensive and expensive bass trapping abounds. Not in LENRD's world.

There, rooms actually sound *good* and look *cool*. Corners don't cause the headaches they once did. Checkbook balances contain numbers much larger than zero. Clients smile. Life is good in LENRD's world. A fairy tale? No way. LENRD rules!

Low frequency sound waves are so long—and thus so strong—they are the toughest to control. This is true no matter whether you're attempting to block their transmission to a neighboring space or trying to absorb them to clean up the low frequency response within a room. Controlling low frequency sound is harder than controlling mid or high frequency sound and generally requires more effort and expense. Luckily, Auralex can help.

LENRD stands for **L**ow-**E**nd **N**ode **R**eduction **D**evice. (As you may know, a resonance bump in a room's frequency response is called a room node.* *Get it?*) Now, thanks to LENRD, you can achieve—for a pathetically small amount of dough—low frequency accuracy other companies can't give you for *any* amount of money! We're not being boastful, just knowledgeable, when we say that LENRD has virtually no competition.

Bass nodes are the most prominent and most difficult to control in any room. Bass traps substantial enough to control them have always been expensive to buy or intricate & time-consuming to build, but not anymore! LENRD is extremely effective at smoothing out low frequency room nodes at a price that anybody—and I do mean *anybody*—can afford!

LENRD's triangular shape makes quick work of trapping your bass buildup by putting a big chunk of our specialized Studiofoam™ right where you need it: in your trihedral corners (where two walls come together and meet the ceiling). Given that those corners aren't normally used for anything anyway, it's much better to make 'em work *for* you rather than *against* you.

A carton contains (8) 2' tall LENRDs, enough to trap 16 lineal feet. You've probably got 8' ceilings, so one box would be enough to trap both your room's rear corners floor to ceiling. Or, if space permits, you could trap all four corners of your room from the ceiling down 4' (about chair rail height). Two boxes would give you enough LENRDs to trap all four corners floor to ceiling.

**Okay, officially a bump is a mode, and a dip is a node, but LEMRD didn't seem to make any sense to us. Artistic license applied for.*

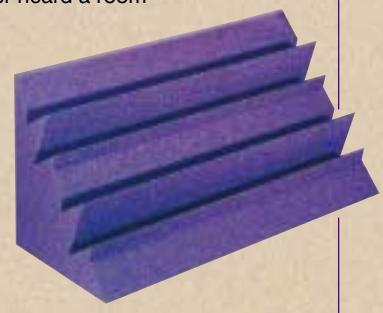
Some of you with more severe bass problems should consider trapping your trihedral corners as well as some or all of your wall-to-ceiling junctures, especially at the front and rear of your room. On page 10 there's a picture of LENRDs installed with our CornerFill Cubes, the recommended implementation for those of you needing to install LENRDs in your vertical *and* horizontal corners. (When we build studios, this is the way we do it.)

See, it's no wonder LENRD's so popular—he's really versatile! And, at our prices, LENRD will definitely not break your bank, no matter how small it is! He's great looking, cheap & easy.

For once, we can all afford the amount of bass trapping we really need!!! So, stop letting the tail (room modes & nodes) wag the dog (you & your investment). Grab some LENRDs and tell your low-end problems to take a hike!

With its 1.24 absorption coefficient at 125 Hz, LENRD is significantly more absorbent than 2" Studiofoam, which has a 125Hz rating of .11, and 4" Studiofoam, which has a 125Hz rating of .31. (And Studiofoam is way more absorbent than other brands!) Due to LENRD's bass absorption efficiency, many users can achieve premium results by utilizing thinner Studiofoam for the bulk of their wall treatment, i.e. they're not depending on the Studiofoam'd walls to add a lot of low frequency absorption to the overall installation. This can save users tons of money depending on the size of the area they're treating. It's also true that, for a device intended for bass absorption, LENRD exhibits quite admirable linear broadband absorption across the entire frequency spectrum. See all of LENRD's absorption coefficients in the chart on page 18.

Since virtually EVERY room benefits from low-end node smoothing to one degree or another in a variety of locations (trihedral corners, wall/ceiling junctures, under balconies, etc.), you should give really serious consideration to including LENRDs in your installation. In all our years of experience we've honestly never heard a room that was over-absorbed in the bass frequencies, so you run no risk of overtreating with LENRDs. (Studios designed by the "million dollar guys" feature WAY more bass trapping than most people realize. I'm talking TONS more.)



LENRDs are working for many of our most famous clients. World-famous studio designers are spec'ing LENRDs. Major magazines have raved about LENRDs. Why? They know pound for pound, LENRD gives 'em world-class absorption at unmatched prices.

It's easy to see why you should put LENRD to work at your facility today!

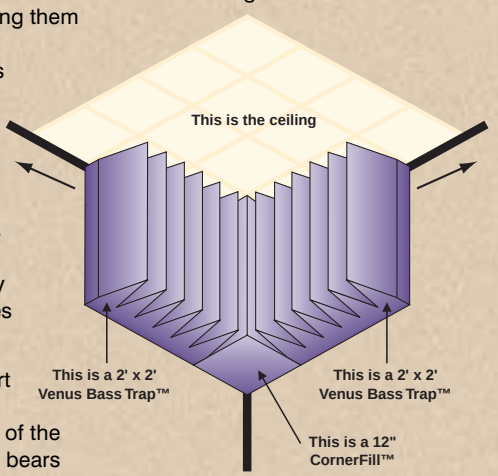
Specifications:

NRC: *1.35* ***Qty. Per Box:*** *8 (16 lineal ft.)*
Recommended Adhesive: *1 Foamtak or 2 Tubetak per box*

Venus™ Bass Traps

The Venus Bass Trap achieves a prodigious level of low frequency absorption at your room boundaries—where problems begin—at a price that allows it to fit into most realistic budgets. The Venus ships in a 2'x4'x12" size, but is often cut in half to 2'x2', then paired with a 12" Auralex CornerFill, as shown in the diagram below.

While the Venus Bass Trap can provide serious low frequency and broad bandwidth absorption that's literally second to none in *all* rooms, it really shines in larger rooms like gymnasiums, houses of worship and multipurpose rooms. That's not to say the Venus isn't just as effective in smaller rooms, though. For example, one of the country's hot new up-and-coming ad agencies & post houses has a relatively small studio whose entire 10' tall ceiling is treated with Venus Bass Traps. Using them in this way allowed the room's low frequencies to be smoothed out without taking too big a bite out of the room's 10'x14' size. The room now exhibits a sound that is surprisingly spacious, yet controlled; certainly the room's sound belies its small size.



You're standing in the room and looking up at the corner where the two walls meet the ceiling.

We recommend you start with this configuration in each corner of your room. If problems persist, which they probably won't, repeat the process just below the initial pieces. You can also add more Venus Bass Traps horizontally from the corner at the wall/ceiling junctures (indicated by angled arrows above).

You can check the chart on page 18 for all the absorption coefficients of the Venus Bass Trap, but it bears mentioning here that the Venus exhibits a phenomenal coefficient of 1.63 at 125Hz—so good that the testing lab guys called and said "Wow, how'd you do that?!"

If you're going for a Hidley-esque control room design, the Venus can provide some of the rear wall absorption Mr. Hidley feels is all-important for low-frequency accuracy at the mix position.

Thanks to the Auralex Venus Bass Trap, you can finally afford phenomenally effective, really serious low frequency control.

Specifications:

NRC: *1.30* ***Qty. Per Box:*** *2 (16 sq. ft.)*
Recommended Adhesive: *1 Foamtak or 2 Tubetak per box*

Diffusors

Got Live If Ya Want It!

Proper control of room acoustics typically requires three distinct types of sound management: absorption, transmission control and diffusion. Absorption of the sound waves bouncing around inside a room is easily accomplished by the judicious installation of acoustic foam. Transmission control (keeping inside sound in and outside sound out) is accomplished by means of specialized sound barrier materials like our SheetBlok™, specifically designed trapped air cavities, and multiple layers of specially-choosen construction materials. Diffusion is accomplished by alleviating large flat, reflective room surfaces—about which the consensus is they have no place in serious recording, performing or listening environments—and instead introducing surfaces of scientifically-designed varying shapes, sizes and angles. Auralex features three proprietary diffusors, the T'Fusor, the MiniFusor and the Metro Diffusor to serve any sonic, architectural or budgetary need.

What Does Diffusion Do For Me?

Diffusion keeps sound waves from grouping so there are no hot spots or nulls in a room. In fact, diffusion greatly widens the "sweet spot" and lends a strong, 3D sense of openness to a room, making it easier to hear "into" a mix. Diffusion obliterates standing waves and flutter echoes without simply removing acoustic energy from the space or greatly changing the frequency content of the sound. Some famous recording artists like to perform in strongly diffusive environments because of the openness they hear. Diffusion can make a small space seem large and a large space seem even larger. Diffusion in a control room imparts the all-important Initial Time Delay (ITD) that keeps early reflections off room boundaries from getting to your ears too soon & smearing the direct sound you hear from your monitors. In conjunction with absorption, diffusion can very effectively turn virtually any space into one that is appropriate and useful for the purpose of recording or monitoring sound with a high degree of accuracy.

How Does Diffusion Work?

In a couple of ways. Most obviously, the irregular surface contours and varying angles of the diffusor each reflect sound waves in specific different directions. Less obvious but just as important, the varying heights and angles that diffusors contain work by slowing down incoming sound waves that pass through the diffusor & strike the mounting surface at different times. Thus, sound is spread out not only in a physical (reflected) sense, but also in the time domain. Whereas the waves that get through the diffusor's material are mainly low frequency waves, introducing a piece of relatively dense sound absorbent material behind a diffusor can improve time domain spread, diffusion and, to some degree, even low-end absorption. (Low-end absorption is a better goal than low-end diffusion, which based on physics is difficult to achieve and would only serve to muddy your sound.)

Who Needs Diffusion?

Most spaces can benefit from the introduction of properly designed and located diffusion; only the quantity & placement varies. Diffusion has been successfully implemented in studios, control rooms, concert halls, gymnasiums, meeting rooms, sanctuaries, natatoriums and more. The proper balance of diffusive & absorptive surfaces varies with room size & function. Your dealer or Auralex representative will be glad to assist you in choosing the proper type and quantity of diffusors & can advise you as to the best location for the devices in your particular space.

How Does A Good Diffusor Perform?

A good diffusor spreads sound evenly over the entire hemisphere in front of it in both the vertical and horizontal directions (like ours does, if I might be so bold as to point out the obvious). The smoother the arc the better, because deviations from a smooth arc indicate volume changes. The object of diffusion is to redistribute mid and high frequency sound evenly throughout a space, not to absorb it, so you want a diffusor whose arcs at the various frequencies (a) are very smooth and (b) all show basically the same shape, which indicates the unit is providing uniform diffusion at all frequencies (like ours does from below 177 Hz to over 11,233 Hz, way above the test's cutoff frequency of 8000 Hz). Other diffusors on the market generate arcs that have too much deviation from smooth and arcs that aren't semicircles, they're more like the teardrop lobes generated by a flat panel. This means the other companies' diffusors aren't redistributing sound energy evenly in a 180 degree hemisphere. The T'Fusor does (as shown by the polar plots on page 18).

In Which Rooms & Which Placement Is Diffusion Appropriate?

First, let's talk about control rooms. Most studio designers will tell you that the front of the room (walls & ceiling) should be absorptive as far back as the engineer. The ceiling from the engineer back can contain a mix of diffusion and absorption, but many top designers feel the rear wall should feature a diffusor array surrounded by broad bandwidth absorption, especially in larger rooms. The side walls & ceiling from the engineer's position on back can be alternately absorptive and diffusive. Treat your control room this way and I defy *anyone* to say your room sounds bad.

Second, live rooms (i.e. studios). Personal taste, room size and room function determine how dry (absorptive) or wet (diffusive) a studio should be, but many famous rooms are absorptive in some spots and diffusive in others. Generalizations: rock studios should be more absorptive than classical or jazz studios, and rarely should be totally "dead". Personally, I prefer drier rooms, but if I've gotta be in a wet room, I want the liveliness controlled by diffusion to yield a more pleasing & smoother overall room sound & reverb tail (decay).

Third, isolation & voiceover booths. Personal taste & room size come into play here, too. As a voice talent, I prefer totally absorptive environments. As a drummer, however, I prefer a combination of diffusion and absorption on all room surfaces with significant bass trapping. If I was recording sax players, violinists or solo sopranos, I'd

want some combination of the two; probably more diffusive than absorptive. It's truly your call, but bear in mind that once bad (non-diffused) "room sound" is captured on tape, disk, etc., you can never get rid of it. As Ross Vannelli said to me, "There's no knob for it."

Where, & In What Quantities, Do I Install T'Fusors?

In most small control rooms we recommend a group of 4 T'Fusors installed on the rear wall. Larger control rooms get 4 additional T'Fusors on the rear wall and, optionally, additional units placed on the ceiling from the mix position back. Discretionary placement: side walls behind the mix position, alternating with acoustic foam. We feel groups of less than 4 T'Fusors are not audibly worthwhile. For T'Fusors to work properly, the pattern must not repeat sideways or vertically in close proximity to itself, hence the recommended orientation shown on the opposite page.

Features & Benefits

We developed T'Fusors not because the other diffusors on the market don't work well; some certainly do to one degree or another. Rather, we felt that other manufacturers were disregarding certain real-world concerns. Other brands are much more expensive, can be heavy & expensive to ship, can be too heavy to mount with adhesive or on a ceiling, are sized inappropriately (15.5" for some; 2'x4' heavy wood &/or metal for others), won't work in suspended ceiling grids, are very difficult for even professional painters to evenly coat, are very fragile &/or feature poor quality workmanship & low perceived value.

T'Fusors, on the other hand, are 23.75" square which allows them to drop perfectly into a suspended ceiling grid. They're lightweight and nest into each other, so per-unit and total shipping costs are dramatically lower than other brands. They're made of a really sturdy, high-impact thermoplastic resin that stands up much better to normal wear and tear than competing brands. They are MUCH more easily painted than other brands. They are lightweight enough to mount easily to walls & ceilings using construction adhesive or mechanical fasteners of your choice (2-sided tape, screws, staples, nails, push or T-pins, etc.). They are sized to facilitate alternating them with our acoustic foam panels for better overall room sound. They have a 1" ledge in their back that facilitates insertion of SheetBlok, flat-cut acoustic foam or rigid fiberglass board for greater versatility in a variety of situations. They're available in paintable white. Studio designer Bob Suffolk is using them in his rooms and absolutely raves about them, saying they're imparting a very noticeable spaciousness to the sound he's achieving. I've been in some of Bob's rooms and spoken with the engineers, who confirm Bob's feelings. One fellow told me his control room (which Bob designed with nothing but Auralex products and in which the entire ceiling's treated with T'Fusors) is the best room he's ever worked in & allows him to hear much greater detail in his mixes. I heard the room & must say I agree. (You hear this room's national account work every day for JC Penney, Ford and more.)

Last, but not least, T'Fusors are priced WAY BELOW competing products. So much so that some facilities can save literally *hundreds* or even *thousands* of dollars. For example, I was in a famous room recently and the engineer told me the competing diffusors on their wall cost them over $3000 back in 1985. He about dropped his teeth when I showed him the T'Fusor polar plots (page 18) and told him he could do a T'Fusor array just as large for less than $500 (in today's dollars, no less). So when we say "way below" competing products, we're not just blowing smoke. We're talking 90% less expensive and they yield better performance! T'Fusors by Auralex. Make it so!

MiniFusor™ Sound Diffusor

Just like its big brother, the T'Fusor, the MiniFusor is very versatile and affordable. The MiniFusor's shape lends itself to various wall patterns and its cavity can be filled with acoustic foam to provide better diffusion & low frequency trapping. MiniFusors offer a rare combination of great performance & a great price!

Dimensions: 12"x12"x5"
Qty. Per Box: 12 (12 sq. ft.)

The T'Fusor™ Story

Auralex spent some big-time money and had a very well respected man in the audio industry—a man who was formerly near the top of one of the industry's most revered companies for many years and who sits on the Board of Directors of the AES (Audio Engineering Society), our industry's governing body—devise very intricate, time-consuming and computer-intensive custom testing for us to see just how well our T'Fusors and MiniFusors perform.

After a couple weeks of having custom tooling manufactured and installed, setting up the Crown TEF-20 analyzer and double checking his setup and methodology down to tiny fractions of an inch, our man went to work. He ran a wide battery of hundreds of measurements in the specially-set up anechoic chamber we constructed just for these tests.

When the smoke cleared many long days later, he scratched his head and examined the mountains of data in front of him, trying to make sense of what the computer was saying. He was perplexed. These T'Fusors couldn't possibly be performing this well, could they? There was only one way to find out. Being a very fastidious engineer, he took a deep breath and began the whole testing process over again to double check the data the analyzer were presenting him, which he frankly doubted could be valid. They were simply too good, *or so he thought*.

After running the whole battery of tests again and reanalyzing the reams of printouts, he smiled, nodded his head and sent a fax to me that said, simply, "I've run the tests twice to verify the computer's measurements and am excited by the data I've gathered. It appears you have a real winner on your hands."

This was the understatement of the year from a very analytical man. The T'Fusor performed better than any diffusor he'd ever measured.

Absolutely Unsolicited & Unedited Customer Comments:
Mike M. called us to say this about T'Fusors: "I spend 1/2 the time I used to fussing with sounds. I never had any idea how much my room was messing things up! Having been familiar with other brands of diffusors (& their prices), I never would have guessed the T'Fusors could provide such a high degree of performance for such a low price. They're great!"

Mark Lindsay of Paul Revere & The Raiders said: "All your stuff is great, but I was particularly impressed with my T'Fusors. They sound a lot better than other diffusors I've used that're way more expensive. They're the best diffusors on the market! You should tell more people about 'em."

METRO

Introducing the Auralex Metro™ family of products, the newest additions to our Architects' Choice™ Series.

The Metros blur the line between those products that work well *acoustically* and those that yield the desired *aesthetics* many users desire.

NEW!

Both the Studiofoam Metro and the Metro Diffusor afford minimal installation seaming because the left and right edges of the panel are the same height. They lend themselves to a variety of installation patterns that look great and sound quite natural due to the Metro's linear—& moderate—acoustical action.

A Brief Physics Lesson (Why The Metro Works So Well)

The differing heights of protrusions on the Metro products serve to spread sonic energy out in the time domain, as well as each absorbing a slightly different slice of the frequency spectrum. You see, it takes slightly different amounts of time for sound waves to travel through the different sections of the Metro, strike the mounting surface & travel back through the Metro into the room, so wavefronts are in effect softened rather than just being absorbed. This is why a Metro room will retain a bit more "feel" than a room that's treated with a stronger absorber like 3" or 4" Studiofoam Wedges or Pyramids and why, when coupled with a judicious amount of Metro Diffusors, a well-controlled, natural-sounding space will result.

Don't suffer with lackluster sound and a shoddy appearance any longer. Pick up some Metros today and take your place *uptown*!

STUDIOFOAM™ METRO™

Metro LENRD Bass Traps

To round out the Auralex Metro family, we proudly introduce the Metro LENRD Bass Trap. This triangular shaped bass trap fits into room corners and wall/ceiling junctures perfectly, and provides outstanding broadband absorption (especially at low frequencies). Based on the design of our original LENRD Bass Trap, the Metro LENRD gives a fresh look to a reliable, unbeatable sound absorber! Plus, it's available in all 12 Auralex colors.

All three Metro products work together to provide sound absorption, diffusion and bass trapping, while the "cityscape" cut provides visual continuity to your room. The Metro family was designed with a professional, architectural look for use in studios, classrooms, home theaters, office buildings, churches—anywhere a more upscale look is desired.

Now you can enjoy complete, effective acoustical treatment with a look that's dramatic, yet pleasing to the eye...and ear.

Specifications:

Studiofoam 2" Metro
NRC: *.70* ***Qty. Per Box:*** *12 panels* ***Coverage:*** *96 sq. ft.*
Available Colors: *All* ***Panel Size:*** *2'x4'x2"*
Recommended Adhesive: *1 Foamtak or 3 Tubetak per box*

Metro Diffusor
Qty. Per Box: *6 panels* ***Coverage:*** *48 sq. ft.*
Color & Material: *White EPS* ***Panel Size:*** *2'x4'x2"*
Recommended Adhesive: *2 Tubetak per box*

Metro LENRD Bass Trap
Qty. Per Box: *8* ***Coverage:*** *16 lineal feet*
Colors Available: *All* ***Size:*** *2'x1'x1'*
Recommended Adhesive: *1 Foamtak or 2 Tubetak per box*

Room Kits

Roominators™
Complete Acoustical Control Kits

Auralex has made it easy and affordable to improve your sound by taking the guesswork out of acoustics! We now offer three Roominators™ Complete Acoustical Control Kits that can easily tame the sound problems that occur in commonly-sized rooms. With Roominators, everyone from the novice to the pro can sound their best.....no formulas, no mumbo jumbo, no physics required! Finally, somebody has made it easy for you to sound great!

Think about this: What do you want out of your equipment? Better sound! The trouble is, without fixing your room acoustics, none of your great equipment will sound as good as it should. Your room just won't let your gear's true sound come through.

FACT: Bad sound is everywhere—in every room, regardless of size or shape.

Now you can have the big studio sound you've been looking for, but didn't know where to find & thought you couldn't afford. We've packed the same features and performance into the Roominators Kits that our famous clients love!

Roominators Complete Acoustical Control Kits contain:

Studiofoam 2" Wedge Panels to absorb early reflections & kill that hollow, "ringy" room sound.

LENRD™ Bass Traps to smooth out rooms' inaccurate & excessive low frequencies.

Foamtak™ Spray Adhesive to mount Studiofoam & LENRDs with minimum hassles.

T'Fusor™ 3D Sound Diffusors (Deluxe & Pro Kits Only) for that spacious ambience & wide sweet spot big-name studios have.

By treating your room appropriately, you'll:

- ★ Improve the sound of everything you record, listen to or mix;
- ★ Be able to reduce your monitoring volume yet actually hear *better*;
- ★ Hear more of the subtle sonic details that your room's inaccurate reflections have been burying;
- ★ Achieve better sound out of your existing equipment;
- ★ Improve your engineering skills, be more creative & get more enjoyment out of your equipment *and* your room!

Sizing Recommendations:

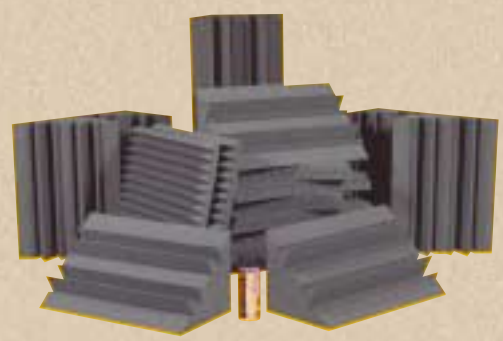
Roominator Kit	Area, or Length x Width (ft²)	Shortest Room Dimension (ft)
Standard	≤ 100 ft²	8 - 10
Deluxe	100 - 250 ft²	10 – 12
Pro	250 – 400 ft²	12 - 14

Roominators™ PRO

(24) Studiofoam 2" Wedge Panels
(12) LENRD Bass Traps
(6) T-Fusor 3D Sound Diffusors
(2) Foamtak Spray Adhesives

Roominators™ DELUXE

(18) Studiofoam 2" Wedge Panels
(8) LENRD Bass Traps
(4) T-Fusor 3D Sound Diffusors
(1) Foamtak Spray Adhesives



Roominators™ STANDARD

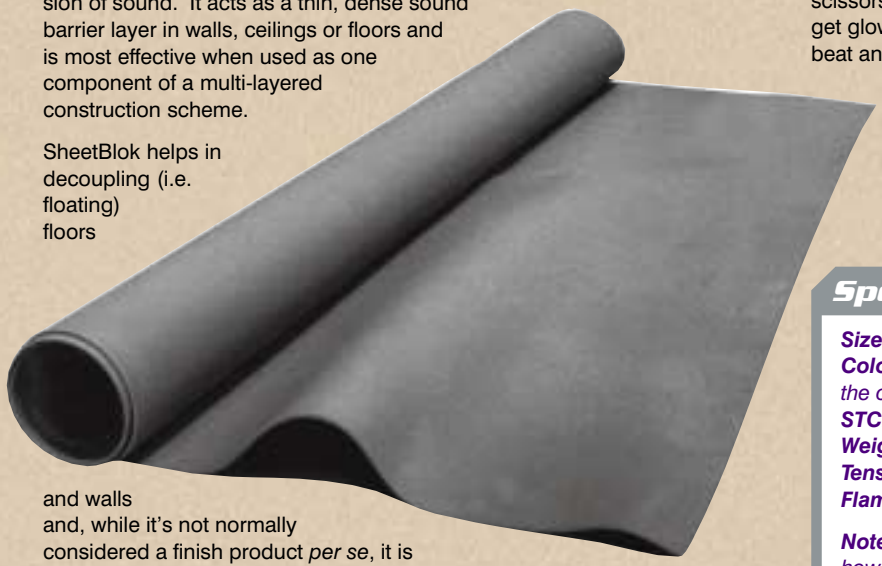
(16) Studiofoam 2" Wedge Panels
(8) LENRD Bass Traps
(1) Foamtak Spray Adhesives

Barriers

SheetBlok™ Sound Barrier

SheetBlok is a dense, limp-mass vinyl material that is about 6 dB more effective than solid lead at stopping the transmission of sound. It acts as a thin, dense sound barrier layer in walls, ceilings or floors and is most effective when used as one component of a multi-layered construction scheme.

SheetBlok helps in decoupling (i.e. floating) floors and walls and, while it's not normally considered a finish product *per se*, it is paintable with latex paint and can in some cases be your last layer if you make sure to carefully install it & use trim strips over its seams.



SheetBlok can also be used to wrap HVAC ducting, as a vent noise blocker, as a pipe noise insulator or under carpet/carpet pad. It holds up against harsh environments & cuts easily with a utility knife or scissors. Famous studio designers buy SheetBlok repeatedly & we get glowing reports on its performance all the time. It simply can't be beat and is a must for users who demand serious soundproofing.

SheetBlok is an Auralex Top Seller! By the way, if you need even more help than one layer of SheetBlok offers, you can double it up for improved isolation and can expect its effectiveness to increase from STC 27 to about 35.

Specifications:

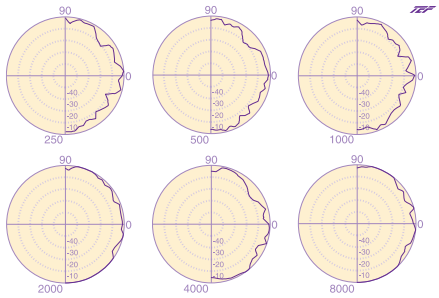
Size: *4'x10' pieces (40 sq. ft.) or 4'x30' rolls (120 sq. ft.)*
Color: *Black (smooth on one side; has a pebble grain finish on the other) or clear (special order subject to availability)*
STC: *27* ***Thickness:*** *1/8"*
Weight: *±1#/sq. ft.* ***Service Temperature:*** *-40° to 180° F*
Tensile Strength: *400 psi* ***Tear Strength:*** *70#/inch*
Flammability: *UL94 S.E. "0"; Passes MVSS-302*

Notes: *(1) STC stands for Sound Transmission Class, a rating of how effective a product is at being a sound barrier. (2) Clear SheetBlok is sold by the square foot and is available in widths up to 4'.*

Auralex Acoustical Products Testing Data

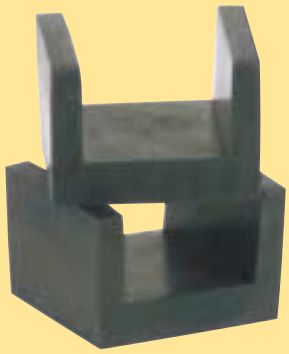
	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	NRC
1" Studiofoam Wedges	0.10	0.13	0.30	0.68	0.94	1.00	**0.50**
2" Studiofoam Wedges	0.11	0.30	0.91	1.05	0.99	1.00	**0.80**
3" Studiofoam Wedges	0.23	0.49	1.06	1.04	0.96	1.05	**0.90**
4" Studiofoam Wedges	0.31	0.85	1.25	1.14	1.06	1.09	**1.10**
2" Studiofoam Pyramids	0.13	0.27	0.62	0.92	1.02	1.02	**0.70**
4" Studiofoam Pyramids	0.27	0.50	1.01	1.13	1.11	1.12	**0.95**
2" Studiofoam METRO	0.13	0.23	0.68	0.93	0.91	0.89	**0.70**
2" SonoMatt	0.13	0.27	0.62	0.92	1.02	1.02	**0.70**
2" Wedgies	0.15	0.21	0.70	0.99	1.05	1.05	**0.75**
Venus Bass Traps	1.63	1.34	1.29	1.26	1.25	1.20	**1.30**
LENRD Bass Traps	1.24	1.28	1.45	1.39	1.27	1.31	**1.35**
Sunburst Males	1.08	1.23	1.14	1.07	1.05	1.08	**1.10**
Sunburst Females	0.65	1.02	1.00	1.08	1.05	1.08	**1.05**

Notes: *The higher the number, the more absorption. NRC stands for Noise Reduction Coefficient and is a single number average of absorption at frequencies between 250 and 2000 Hz. The federally mandated test (ASTM C 423) is standardized to only cover frequencies from 125 Hz to 4000 Hz. No room in the US is certified to test below 125 Hz, so that's as low as the standard allows frequencies to be quoted.*



T'Fusor Polar Plots of Acoustical Scattering

Note: *The T'Fusors were tested in accordance with the proposed standard for determining the Directional Scattering Coefficients of acoustically diffusive materials which is under review by ASTM Committee E-33 on Environmental Acoustics. The full proposed standard can be found in Journal of the Audio Engineering Society Volume 40, Number 12, December 1992.*



U-Boats™ Floor Beam Float Channels

Made of a specially-formulated rubber compound, U-Boats are U-shaped channels used to support framing members and isolate (decouple, or *float*) them from the surrounding structure. With the help of U-Boats, a floated room features improved transmission loss (isolation) and low frequency definition. It's easy to figure how many U-Boats to get: just multiply the total square footage of the area you want to float by two-thirds; the resulting number gives you the approximate amount of U-Boats you'll need. U-Boats are the industry's most affordable floating solution and are much easier to use than those exorbitant "pucks" that have been used in the past. Personally, we would *never* design or build a studio without 'em! To get the biggest benefit from U-Boats, install your joists 12" o.c. instead of 16" o.c. Recent testing has shown that U-Boats are safe to use at spacings up to 32" o.c. U-Boats on 16" centers will alleviate 50-99% of vibrations above 40Hz. U-Boats on 32" centers will alleviate 50-99% of vibrations from 20Hz up. More information on U-Boats—and all our products, particularly how to install them for maximum benefit—is available at www.auralex.com.

Mineral Fiber Insulation

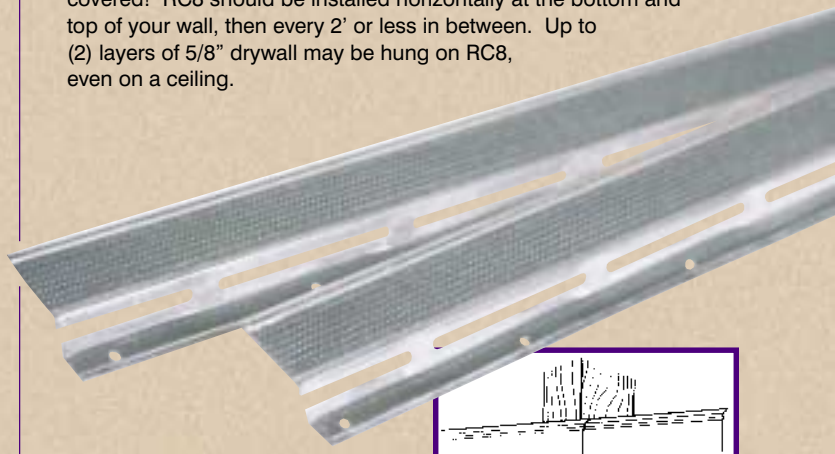
As previously discussed, the best way to tighten up a room's sound *and* make it more soundproof in the process is to design it right, build it tight and make the partitions as dense as possible. That's where our specialized, imported mineral fiber comes in. It's *way* more dense than "the pink stuff" and is specifically designed for acoustical usage. It yields better bass trapping, overall absorption, thermal characteristics and sound transmission loss (isolation) than any other product we've found. Our construction booklet *Acoustics 101* has spec'd it for years, but it isn't widely available, so Auralex now offers it in 2" & 4" thicknesses. If you want to make your place the best it can be, you need to give serious consideration to Auralex mineral fiber. Note: For those of you in need of absorption, but for whom acoustic foam may not work for whatever reason (flame retardancy, looks, style, etc.), mineral fiber covered with specialized acoustical cloth is a viable alternative.

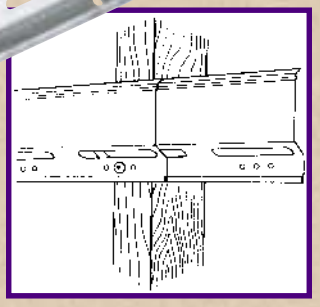
Specifications:

NRCs: *1.00 (2" & 4").*
Qty. Per Box: *2"—6 (48 sq. ft.); 4"—3 (24 sq. ft.)*
Flame Retardancy: *Class A*
Advantages vs. Std. Fiberglass: *lower moisture absorption, better flame spread & smoke density, 1200° burn point vs. 650°*

RC8™ Resilient Channel

Auralex's RC8 is a specially-formed, sturdy metal device that, when used to hang drywall (instead of just attaching the drywall to the studs or joists), greatly improves the sound transmission characteristics of the wall or ceiling system. RC8's effectiveness has been well documented for years, but the problem has always been that RC8 isn't commercially available in many locales or is available only to licensed contractors. This led to numerous customers calling Auralex saying they couldn't obtain RC8. Not to worry.....we've got you covered! RC8 should be installed horizontally at the bottom and top of your wall, then every 2' or less in between. Up to (2) layers of 5/8" drywall may be hung on RC8, even on a ceiling.





Specifications:

RC8 is available in handy 8' lengths that are UPS shippable. There are (24) 8' pieces per box.

Adhesive

Tubetak™ Pro Liquid Adhesive

Tubetak Pro is a super-strong bonding adhesive that comes in a tube and applies easily with a standard caulking gun or our Tubetak Pro Applicator, available separately. Tubetak Pro provides a permanent bond and one tube mounts up to 32 square feet of foam or diffusors, depending on thickness. Other brands of liquid adhesive have been known to oxidize ("eat") foam, but Auralex guarantees that Tubetak Pro will not oxidize Auralex foam products. Tubetak Pro Liquid Adhesive may be purchased in any quantity needed.

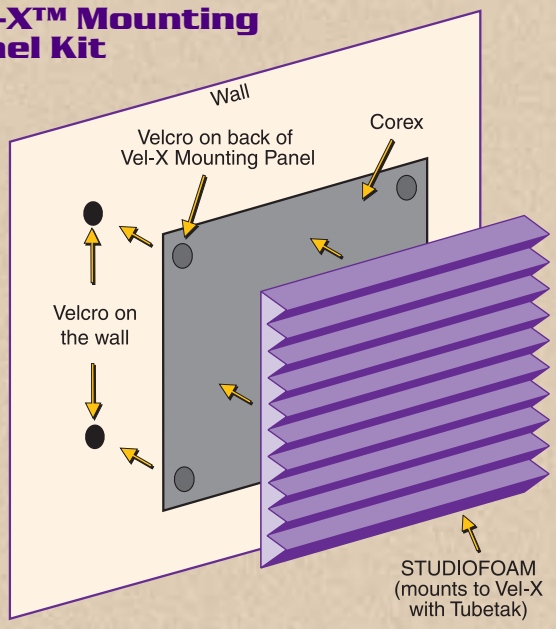
Covers up to 32 sq. ft. *Accessories:* *Tubetak applicator tip*
Tubetak applicator gun

Foamtak™ Spray Adhesive

Foamtak is quite simply the fastest and easiest way to mount Auralex acoustic foam products. Unlike Tubetak adhesive, which is more permanent & tougher to remove down the road, Foamtak can be applied lightly so that your foam is removable, or it can be applied heavily for a more permanent bond. Foamtak contains more solids than competing spray adhesives and uses a unique spray pattern, so it offers greatly improved long-term bonding power vs. other sprays, which tend to dry out & fail. Foamtak is guaranteed not to oxidize Auralex acoustic foams and may be purchased in any quantity needed. You'll love its ease of use!

Mounts up to 96 sq. ft. or more per can depending on foam thickness.

Vel-X™ Mounting Panel Kit



Vel-X panels are special corrugated polypropylene panels that are cut in 22" squares and can be used to mount Auralex acoustic foam in a movable or temporary way on walls. The foam is adhered to the Vel-X panels with Tubetak adhesive, then the special (not the same as you get at the hardware store) Velcro dots are used to stick the panels to the wall. The panels are movable at will, allowing you to tune the room for a particular project or take them with you when relocating to a new facility, so now there's no need to leave your Auralex investment behind. Vel-X panels are shipped with both Tubetak and special Velcro dots included.

Specifications:

Minimum shipment is (4) 22"x22" Panels
- *1" needs 40 panels per box of foam*
- *2" needs 24 panels per box of foam*
- *3" needs 16 panels per box of foam*
- *4" needs 12 panels per box of foam*

NEW!

Pressure Sensitive Adhesive (PSA)

PSA allows you to install SheetBlok and Studiofoam quickly & easily with no hassles or headaches. When installing SheetBlok with construction adhesive, it's still necessary to secure it with nails or grommets, which creates the possibility of sound loss and leaves holes that need sealing. With PSA, installation is virtually painless! Just roll the PSA onto the back of your SheetBlok, peel the paper backing off & press it into place. There's no need to follow up with nails or grommets, which means you don't have the hassle of taking the time to caulk nail holes! PSA is also available in a 2" wide roll for use in installing Studiofoam. It's perfect for those who want fairly permanent installation without having to use construction adhesives. PSA is our version of a pain reliever!

Available in 4'w x 10'l, 4'w x 30'l or 2"w x 750"l rolls. One 2" roll mounts up to 14 boxes of Studiofoam, depending on thickness.

WindJammer™ Model 2421 Windscreens

Auralex's proprietary microphone windscreen that fits many popular mics such as: AKG C3000, C5600, D3400, 3500, 3600; AUDIO TECHNICA AT4033, 4050, CM5; ELECTROVOICE RE20, RE27ND, PL20; NEUMANN TLM50, 170, 193, U87, U89; OKTAVA 219; SANKEN CU41; SENNHEISER MD421U; SONY C800; STEDMAN M90 & other large microphones with diameters up to nearly 3". The 2421's exclusive chemical formulation gives years of service & doesn't crumble like other brands are known to.

The WindJammer Model 2421 is available in red, blue, kelly green, orange, vivid purple and charcoal gray, so it coordinates well with the colors of Auralex acoustical products. WindJammers look and sound great, they're priced up to 63% less than competing brands, they're available in more colors & they're longer lasting! Perfect for live or studio use, the WindJammer's bright colors make it easy to identify at a glance which channel a performer is on. Improve your sound & protect your valuable mics with WindJammers today!

EC-414™ Headphone Ear Cushions

EC-414's are designed as replacement ear cushions for the popular Sennheiser HD414 Headphones. EC-414's are made from a special formula of open-celled Studiofoam that sounds great & won't get brittle or crumbly. They're available in yellow, blue, red, orange and vivid purple. Pick some up today!

(Headphones not included, obviously.)

DLK-10™ (Dynamic Loudspeaker Kontroller) Tweeter Protectors

DLK-10 Tweeter Protectors are designed to virtually assure that you'll never blow your Yamaha NS-10M studio monitors' tweeters. DLK-10's are dynamic devices, only becoming electrically "active" when signal current levels dictate. But at volumes that don't endanger your tweeters, they're invisible, electrically speaking. A pair of DLK-10 Tweeter Protectors sells for less than the cost of just *one* replacement tweeter and installation takes just a couple of minutes. They're warranted against failure for one year (the DLK-10s, not your tweeters).

Sold in pairs.

Installation Tips

Not only is Studiofoam the world's most absorbent acoustic foam, it's the world's easiest-to-install acoustic foam! Why so?

Because we designed Studiofoam so that each piece in each box is functionally identical. This means that, within the tolerances quoted in the catalog, each piece will have the same dimensions, and the peaks, valleys & pyramids will all line up. With a little imagination, some patience, and careful cutting with your handy electric carving knife, you can end up with a **REALLY** cool installation!

Reflective walls generally cause more problems than reflective ceilings, so we advise investing the bulk of your money in wall treatment. This isn't to say that you can ignore your ceiling, but if you can only do one or the other, "Hit The Wall" first! If you desire to treat your control room's ceiling, concentrate on the ceiling at the front half of the room (the end where the monitors & board are) & spot treat the ceiling toward the rear of the room.

Bob Kevoian, of "The Bob & Tom Show", Indianapolis

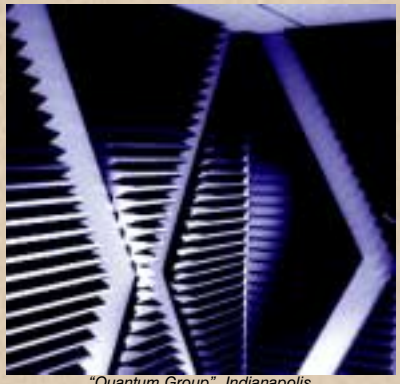
Obviously, we don't have the space to show you all the possible variations, but here are four photos of recent Studiofoam Wedges installations that might give you some ideas.

As you can see in the Quantum Group photo, we started with 4" Studiofoam Brand Sound Absorbent Wedges. We then cut each 2'x4' sheet diagonally to yield two triangular-shaped pieces 4' long. By the way, if you have a perceptive eye, you'll be able to see that we used CornerFills to give us a smooth edge to butt our Studiofoam up to. The seams between pieces are smooth enough that they hardly show up in the photo. Notice how well the peaks and valleys line up? Try doing **THAT** with some of the other foams on the market!

"Perkins & Co.", Louisville

"JEM Studios", Chicago

The look of the installation can be varied from this example by first cutting your 2'x4' sheets in half so you end up with 2'x2' squares, which is what the contractor did in the Kevoian and Perkins & Co. studios. (He also beveled the panel edges.) At JEM Studios, where maximum acoustic accuracy is the goal, they first treated their corners with LENRDs, then applied 2'x4' Studiofoam panels horizontally, except in the center of the front wall where they oriented their panels vertically. This room's sound gets rave reviews from major label people.



"Quantum Group", Indianapolis

Put on your thinking cap and you'll come up with all kinds of ideas. Throw in a color variation—or utilize Studiofoam Pyramids instead of Wedges—and you've got the makings of a room that an interior designer could be proud of—not to mention a room that **SOUNDS FANTASTIC!**

If you're installing LENRDs, CornerFills or Venus Bass Traps, install them first, then map out in your mind how you want your Studiofoam, Sunbursts, T'Fusors, etc., to go up. A tape measure or yardstick will come in handy, as will a piece of chalk or a pencil to make small marks on your walls to insure proper alignment. It's not a bad idea to have a level nearby too. This saves a lot of measuring time.

If you're spreading your foam panels apart, say after you cut them into 2'x2' pieces, remember this easy formula to figure out how much space to leave among panels: If you know you've bought enough foam to do about 60% coverage, for example, you'd divide 2 (the width of the panel) by .6 (your percentage of coverage), then subtract 2. The result, in this case 1.3 ft., tells you how far apart to install your foam panels.

Good luck & happy foaming!

Auralex™ acoustics

Personalized Room Consultation Form

PLEASE PRINT CLEARLY AND USE UP TO ONE ADDITIONAL PAGE PER ROOM IF NECESSARY.

Date: _____ Budget For This Project *(mandatory)*:_____
Customer Name: _____What Type Of Room Is It? _____
Telephone Number: _____ Fax Number: _____ Email: _____

Types of acoustical problems being experienced:_____
_____
_____
_____

Preferred treatments *(i.e. wedges, pyramids, etc.)*:

_____

Describe the room's construction & dimensions. Please address what the walls, ceiling & floor are made of or covered with.
Be as specific as possible so we can get an accurate picture of what your room needs.

_____
_____
_____
_____

Draw an overview of the room *(as if you're looking at it from above)*. Be sure to include dimensions with each drawing.
Draw things that are on the ceiling *(light fixtures, ducts, etc.)* with dotted lines.

Draw each of the room's walls. Be sure to include windows, doors, racks that are against the walls, furniture, etc.

What else can you tell us about your situation? *(i.e., what type of instruments/voices are you recording, what type of monitors are you using, how loudly do you play or monitor, etc.....Please be as specific as possible.)*

_____
_____

When working with a dealer, have your sales representative fax the completed page(s) to **Auralex.** If not, fax it yourself to 317-842-2760 and we will respond **by fax** as soon as possible.

cut along dotted line

www.auralex.com

Acoustics 101™

Auralex Acoustics' handy little reference guide to understanding acoustics is now available as a free download on our website. *Acoustics 101* will give you good, solid, cut-to-the-chase advice on how to build your studio so that it's acoustically sound (no pun intended). And best of all, you don't have to be a physics guru to understand it! You'll need Adobe's Acrobat Reader™ to read it, but don't worry... it's a free download, too. Visit www.auralex.com and get *Acoustics 101* today!

Frequently Asked Questions

The Auralex FAQ page on our website will answer many of the questions you may have about how, when, where and why you should use acoustical treatments. You'll find advice on how to install your foam, calculating how much foam you'll need, how to cut the foam and tons more! And if yours is a special situation, you can download the Personalized Room Consultation Form, fill it out and fax it to us. We're not just here to sell acoustical treatments… we're here to help make sure you get the sound quality you're striving for!

Loads of Product Information!

Keep up to date on all of the latest Auralex products by visiting our website. You can view each product individually, or you can download our digital catalog so you can browse at your leisure without worrying about tying up your phone line. You can also see our products' testing data, which can come in especially handy if you're trying to solve a specific frequency problem! Your dealer can supply you with any Auralex product, and can help you decide which will be the best for your particular sound problems.

Website: www.auralex.com
Email: auralex@auralex.com
1-800-95-WEDGE

Auralex acoustics

8851 Hague Road
Indianapolis, IN 46256-1284
Fax: 317-842-2760