

Robert Ovadia

From: Charles O'Meara <comeara@acoustiblok.com>
Sent: Tuesday, August 22, 2023 3:18 PM
To: Robert Ovadia
Subject: FW: 8/17/23 Everything you wanted to know about Pickleball noise abatement but were afraid to ask
Attachments: Acoustifence - Pickleball Courts at Pelican Landing.pdf; Acoustifence reference.pdf; Acoustifence - Pickleball Courts at Heritage Bay.pdf; AcoustiFence Product Data Sheet.pdf; Acoustifence Pickleball noise report February 2018.pdf; Toscana Country Club - Pickleball Overhead Picture.jpg; Acoustifence - Poinsettia Community Park - Pickleball Court -Carlsbad CA.pdf; Sun City Grand - Cimarron Pickleball Facility Noise Study.pdf; 08_03_2021 Acoustifence ManuSpec.pdf

[The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.]

Robert,

I thoroughly enjoyed talking with you and I'm looking forward to helping you reduce the noise from the Pickleball courts. As mentioned I am sending you out my comprehensive Tennis/Pickleball inquiry package with much of the information that you will want to know, including three noise studies that showcase how well our material performs (**Noise is measured on an exponential/logarithmic scale as opposed to a linear one, so every 10dB in noise reduction is perceived as half as loud, and our material performed even better than that**). Our multi-patented, modular all-weather Acoustifence Pickleball noise curtains have been referred to as the **GOLD STANDARD** for Pickleball noise and over the least 10 years have been installed on hundreds of public and private courts across North America, from the heat of the sunbelt to the Canadian cold. Additionally, the Wall Street Journal referenced our noise curtains as a solution for Pickleball noise and they were shown on a story about Pickleball noise on the national television news magazine "Hard Copy".

Besides the information in the email body, I also attached some flyers about our product and why our material is uniquely suited to deal with Pickleball noise. As you read through the email, there is a detailed description of the curtains, followed by **pricing on the different colors and sizes (see red text below)**, so you can get a fairly good idea as to the cost of material for your project (take the length of your fence and divide it by 6, and that will give you an approximate idea as to how many panels your project will require. Then multiply the number of curtains by the cost of the curtain). There is also a list of cities and four Pickleball references that installed our curtains, and you are welcome to contact them.

Attachments

- Acoustifence curtains in Pickleball green installed at a Pickleball court in a club setting in South Florida (our newest green - Forest Green)
- Noise Studies:
 - Acoustifence letter of reference from a satisfied HOA showing a substantial 12dB reduction in noise after using Acoustifence
 - Acoustifence Pickleball noise report February 2018 from a prospective customer
 - Acoustic consultant's Pickleball noise report from Sun City Grand, Cimarron, measuring a 9.9 to 15.8 dB reduction in noise with Acoustifence
- Acoustifence benefits and specifications
- Acoustifence curtains in black installed at a Pickleball court in a 55+ community in central Florida
- Stunning aerial drone shot of Toscana Country Club's new Pickleball courts with black Acoustifence curtains

- eFlyer showing the City of Carlsbad's Poinsettia Park new Pickleball courts with Pickleball Green Acoustifence curtains
- Acoustifence ManuSpec sheet for the new AF6 curtain material

Installation

As for installation, another nice feature of our curtains is that it does not require skilled labor to put them up, though they are frequently installed by fence or sport-court contractors. The municipalities that I deal with either have their Department of Public Works, maintenance people, or Parks and Rec put them up. Country Clubs use grounds keepers, handymen/women or fence contractors put our material up, and HOA's frequently use 'volunteer labor' by having a 'volunteer day'. I have been told that a 3-man crew can put up three 10-foot curtains in one hour, which translates to over one hundred linear feet of curtains installed in a single workday. So, just you can see how simple it is, here is a link to our YouTube installation video for the crew for when they get started.

AF Install Video - <https://www.youtube.com/watch?v=QkSTWzNQm5s> (please note that they talk about starting the installation on the left side and going to the right, but you can just as easily start on the right and work your way to the left).

What is Acoustifence

Acoustifence is a unique 1/8th inch, (3mm x 1.83m x 9.14m) heavy mineral filled visco-elastic acoustical material. It is unique and unlike any other vinyl or rubber barrier material that is currently on the market. It is made in the U. S. A. (from all USA materials) and, unlike fences or shrubs, this material does extraordinarily well in not only blocking direct sound, but also has a tendency to reduce sound from reflecting off it. This occurs as the flexible heavy mass Acoustiblok material actually vibrates from sound, transforming some of it into inaudible trace amounts of heat (sheet lead works in the same manner). Considering that the ideal sound reducing construction is heavy, limp and air tight, the 1.1 lb. per sq. ft. flexible Acoustifence can be an excellent first step in reducing your noise level.

Acoustifence® Benefits and Specifications

- STC (Sound Transmission Class) with a value of 28/ OITC 22
- The material was lab tested and performance certified by an independent lab, Riverbank Acoustic Laboratories (see attachment)
- Barium Free
- UV Tolerant
- Paintable (acrylic latex vinyl based)
- Hydrophobic (impervious to water)
- Totally non-mold (rated 10 of 10)
- No fungal or algal growth and no visible disfigurement, per ASTM D3273 and ASTM D3274 (rating = 10)
- **Tensile strength min. 1974 PSI**
- Besides having a High UV resistance, Acoustifence material has a High Heat tolerance: 200 degrees F (93 ° C) for 7 day
- Safe for outdoor use in cold climates too. It since it doesn't freeze until -40 ° F (-40 ° C) and is not affected by freeze and thaw cycles
- Less than 1% shrink with no deformation
- Made from over 90% recycled or organic material
- 100% recyclable
- Vermin proof
- Easily washed
- STC 28 independent lab certified
- **Made in U.S.A. from all U.S. material**

Acoustiblok Curtains

Designed for use on tennis/ Pickleball courts as well as many other outdoor sport courts, Acoustifence vertical curtains are 6' wide and can be made as tall as your fence requires. Each curtain is made of our Industrial, UV resistant Acoustifence material. Curtains come in Black or Green, and are Internally Reinforced (**IR**) with additional reinforcement for areas that have more wind (Highly recommended where wind is an issue, which is what we recommend for municipal courts).

Curtains below are priced individually and complete with rows of grommets installed 1.0" in from the edges, along with a matching quantity of 14" stainless steel wire ties (each tie is load rated to 250 pounds). For installation you overlap the curtains by 1" and run the steel wire ties through the overlapped grommets and attach the curtains to the fence. This will allow you to securely attach each curtain panel together to create a gap-free run of Acoustifence and maintain the noise abatement integrity for the entire length of the barrier. The curtains shown below are standard heights that we get requests for. But since we custom make all curtains to order, we can make them to any specific height that you require. We can also make a custom width curtain (less than 6 ft) to complete your fence project to the exact dimensions.

Start Small or Do It All - Do I have to cover all four sides, or can I do less?

One of the most common questions I get asked is, *do I have to cover all four sides, or can I do less?* The answer is, 'It depends...'. There are many variables that come into play, but the simple answer is that if you have one side that faces a conservation area, woods, parking lot, waterfront, etc., where the noise will not bother anyone, you might be able to leave that side open. But if there are nearby homes that are already upset with the noise, you might not want to because of how the noise propagates (and just like with fire, it's always easier to put it out when it's still small. Because once it grows, it takes a lot more to extinguish it).

Another question I frequently hear is, *can we just cover the one side that faces the homes?* That might be possible, but since noise will flank a barrier's straight edges, we recommend adding a couple of curtains on each of the perpendicular/return fences to create what I like to call a truncated U-shape barrier. That will help to contain the noise from escaping to the surrounding area.

Suffice it to say that when we talk, I can give you a better idea as to the feasibility of options for your specific situation. But if you start small and need to add curtains for greater coverage on an existing project, with our **patented modular curtain system** you can always order additional curtains and retrofit them to give you the coverage that you need.

The only caveat I would add is if you have a resident that's already at the 'torches and pitchforks' stage. Those people are difficult to deal with and you may only have one shot to get it right before they call their attorney (who is probably on speed dial), so you can't afford to try a section and add more if needed. If they don't hear a noticeable improvement, they may not give you a second chance. And if they do, they are already in a negative mindset, and it will take a lot to overcome that. **Sadly, these people personify the adage "I'm not happy until you're not happy".**

Acoustifence Curtain Pricing shown on some of our most popular sizes (since all curtains are custom made, we can make them any height your project requires). Curtain panel standard width is 6' wide (we can make them less to create a custom width curtain to fill a gap). All curtains are Patented and made with our newest Internally Reinforced AF6 material. Prices shown are for material only (Shipping is FOB Tampa).

BLACK Patented 6' wide Pickleball noise curtains in the most popular sizes (remember - we can make a curtain any height you need).

- 8' high - \$520
- 9' high - \$585

- 10' high - \$650
- 12' high - \$780

Estimated cost for 200 lf =
\$22,100 + tax + freight

NEW FOREST GREEN Patented 6' wide Pickleball noise curtains (color shown below)

- 8' high - \$616
- 9' high - \$693
- 10' high - \$770
- 12' high - \$924

Estimated cost for 200 lf =
\$26,180 + tax + freight



When it comes to noise mitigation, the performance of all of the material is identical. The only difference is the color. All our Acoustifence is made from recycled material, is 100% recyclable and is entirely **MADE IN THE USA**.

References

This is from a satisfied customer with Pickleball courts in upstate New York; *Charles, Thank you for all of your help and advice on this project. It would not have happened without you!! Sound benefits appear right in line with what you advertise. 83 max. inside the court. 60 max. outside the court behind the fence (a 20-dB reduction). Hoping this helps keep peace with my neighbors. Again Charles, thank you!*

Newport Beach Parks and Recreation - They are very happy with their product—"It has made a significant difference".

In addition to the hundreds of HOAs and Country Clubs that I have dealt with, here is a sampling of cities across the country that have purchased Acoustifence Pickleball curtains for noise control.

- Punta Gorda, FL
- Indian Rocks Beach, FL
- Peachtree City, GA
- Scarsdale, NY
- Beach Haven, NJ
- Berkeley Heights, NJ
- Livingston, NJ
- Margate, NJ
- Ocean City, NJ Steve Longo (slongo@ocnj.us) Manager, Ocean City Department of Public Works (609) 425-7373 cell
- Ridgewood, NJ
- Borough of Tinton Falls, NJ
- Little Egg Harbor, NJ

- Sea Girt, NJ
- Lower Moreland Township, PA
- Burlington, MA
- Mashpee, MA
- Millis, MA
- Waltham, MA
- Sylvania, OH
- Eden Prairie, MN
- Shoreview, MN
- Grosse Pointe Shores, MI
- Niles, IL
- Highland Park, IL
- Vernon Hills, IL
- Western Springs, IL
- Carmel, IN
- YMCA of the Triangle, Raleigh, NC
- The Woodlands, TX
- Beaver Creek, CO
- Ft. Collins, CO
- Vale, CO
- Cedar Hills, UT
- Clinton City, UT
- Lindon City, UT
- Orem, UT
- Pleasant Grove, UT
- Providence City, UT
- Provo, UT
- Salem City, UT
- Berkeley, CA
- Carlsbad, CA
- Coronado, CA
- Laguna Beach, CA
- Moorpark, CA
- Newport Beach, CA
- Ojai, CA
- San Clemente, CA
- Yountville, CA
- Sun River, OR
- District of North Vancouver, BC Canada
- Vancouver, BC
- Town of Coquitlam, BC Canada
- Penticton, BC Canada
- City of Cranbrook, BC Canada
- Medicine Hat, AB Canada

The following people have given us permission to give out their name as a reference.

Pelican Landing – Bonita Springs, FL

Janel Wisniewski
239-947-5977

janel@pelicanlanding.com

Heritage Bay Golf & Country Club – Naples, FL

Tennis Center

Rachel Dindak

239-304-5911

heritagebaytennis@gmail.com

Toscana Country Club – Indian Wells, CA

760-404-1590

Cary Collins – Tennis Pro

ccollins@toscanacc.com

Dee Ahern – Pickleball Pro

dahern@toscanacc.com

Tanglewood (Hometown America) - Sebring, FL

Tammy Martin

863-402-1500

Tammy.martin@hometownamerica.net

Acoustifence Reduces Pickleball Court Noise by More Than 50 Percent USA Pickleball Association Test Shows

Posted by [Thomas Wiseman](#) on Mon, Apr 8, 2013 @ 01:38 PM



(above) The heavy, limp, black Acoustifence material used at the Country Roads RV Village pickleball courts reduced pickleball noise by 10-12 decibels, which represents more than a 50 percent reduction in noise to the human ear. Photo courtesy of Country Roads RV Village Neighborhood Association president.

(above) The Acoustifence is a unique 1/8th inch, 6' x 30' (3mm x 1.83m x 9.14m) heavy mineral filled, barium free viscoelastic acoustical material. It is made in the USA from all USA materials.

(left) USA Pickleball nationals competition match shown. Many pickleball courts have chain link fencing around them which allows paddle/ball noise to escape beyond the court. Photo courtesy of USAPA.

(right) A sharp "ping, ping" sound occurs when the hard plastic ball makes contact with the solid graphite, wooden or composite pickleball paddle.

YUMA, Ariz., April 3, 2013 - [Acoustifence](#) soundproofing material placed around a pickleball court reduced noise by 10-12 decibels in a sound meter test conducted by [USA Pickleball Association](#) president Bill Booth on April 17, 2012 at the [Country Roads RV Village](#) pickleball courts in Yuma, Ariz. This represents more than a 50 percent reduction in sound as perceived by the human ear the report concludes.

Even as one of the fastest-growing sports in the United States continues to gain new participants and fans every day, pickleball is disturbing some neighbors and communities who don't want the courts around because paddle noise has become a nuisance issue for some people living close to the courts.

In addition to being one of the fastest-growing sports in the United States today, pickleball has spread overseas into Canada, Singapore, India, Pakistan and other places. According to the USA Pickleball Association, the sport boasts an estimated 100,000 adult players in the United States now, more than triple the number in 2003. There are about 2,500 public courts, versus just 150 in 2003.

For decades, the game of pickleball was little known outside the Pacific Northwest United States. Since its inception in 1965 as a backyard pastime, it is now an organized sport represented by national and international governing bodies. While people ages 6 to 70-plus play pickleball and even compete in local, regional and national tournaments, the main driver of the recent growth is the 55-plus demographic who have taken a liking to the sport. They view it as a way to exercise, burn calories, socialize, and get outdoors. More and more pickleball courts are being built in community parks and especially into 55-plus housing developments. Some communities are converting sporadically used tennis courts into pickleball courts or painting additional lines on tennis courts so pickleball can also be played. Pickleball is played on a smaller court size than tennis but has a similar court design.

More courts, participants, tournaments, and attention to the game has brought on more public complaints and even noise or nuisance related lawsuits attempting to stop play on existing courts or stop construction of new courts.

Racquet and paddle sports like tennis, badminton, and table tennis (ping pong) each produce a unique sound when the racquet or paddle hits the ball. In pickleball, there is a “ping, ping” sound made when the paddle hits the ball because the sport uses medium-sized, solid faced wooden, composite or graphite paddles and a hard plastic perforated ball (resembles a Wiffle ball) that is larger, stiffer and less resistant than a tennis ball. The noise generated by the game is louder, sharper and at a higher pitch than tennis which generates a deeper “thwack” sound that registers far lower on a sound meter.

Pickleball paddle noise is in a sound classification called impact noise – noise that occurs when an object collides with another object. It is a high frequency noise that is at a frequency that our ears are most attuned to. Through Acoustiblok’s analysis and modeling efforts of various pickleball noise related projects, the company says there’s one limiting band of approximately 1.25 KHz (1250 Hz) that spikes when the paddle hits the ball. Acoustifence blocks much of the noise and reduces it to below a nuisance level for nearby neighbors, becoming barely perceptible among other outdoor background noises such as automobile, airplane, human, and machine noise.

You can hear the pickleball paddle noise for yourself by watching the following YouTube video of a tournament match at: <http://www.youtube.com/watch?v=pdVMcIDQJIA> [<http://www.youtube.com/watch?v=pdVMcIDQJIA> title USA Pickleball Association nationals competition]

Unlike often tried natural sound barriers such as fences or shrubs, the Acoustifence material does extraordinarily well in not only blocking direct sound, but also has a tendency to reduce sound from reflecting off it. Acoustifence is a revolutionary heavy mineral filled viscoelastic polymer sound deadening material which is only 3mm (1/8 inch) thick. It’s made in the United States and compared to other soundproofing alternatives, is an economical way to reduce outdoor noise.

The ultraviolet (UV) tolerant Acoustifence is hung via grommets onto the top line of existing chain link, panel, security or support pole fencing systems. It comes in 6 X 30 foot-sheets and can be easily cut and shaped into custom sizes with a craft knife. On solid structure fence surfaces, Acoustifence can be installed by nailing, stapling or gluing. Acoustifence is one of the most effective first steps in reducing outdoor noise. The amount of noise Acoustifence reduces however is much related to other reflective structures in the area. More details on Acoustifence can be seen at: http://www.acoustiblok.com/acoustical_fence.php

Country Roads RV Resort is a 55-plus gated community which boasts 150 acres of lavish, mature landscaping and 1294 privately owned home sites. The Acoustifence testing was conducted by USA Pickleball Association president Bill Booth. Tests were made using a Sper Scientific Digital Datalogging Sound Meter (model 840013), a S-Type Composite Extreme Paddle, and New Dura Fast 40 outdoor balls. Tests were made with the tester attempting to hit the ball with maximum force for a worse-case scenario. A series of readings were taken both through the Acoustifence sound curtain and with no sound curtain. Readings were recorded with the meter at 50 feet from the point of impact. In the first case, the reading was even taken through the sound curtain next to a nearby home at a point 42 feet from the sound curtain. The paddle was 8 feet inside the court for a total of 50 feet. The second set of readings was recorded inside the court at a distance of 50 feet from the point of impact.

With no sound curtain, readings ranged from 64.2 – 71.8 decibels for an average of 68 decibels. Through the Acoustifence sound curtain, the meter readings were between 54.7 – 59.2 decibels for an average reading of 56.7 decibels. **The report concluded that an 11.3 decibel reduction in sound was achieved. This represents more than a 50 percent reduction in sound as perceived by the human ear by nearby homeowners.** That reduction in sound takes the pickleball noise from being annoying to someone to being just barely perceptible, the report conclusion stated. The report also recommended that the Acoustifence product be installed on the inside of the pickleball court if the fence posts are outside the court. The report went on to say that homeowners near the Country Roads RV Village pickleball courts who had the most complaints and lived closest to the courts reported a significant reduction in sound level from having the

Acoustifence material up. He said that his wife often does not realize that they are playing on the court. At times, ambient noise significantly exceeded paddle noise.

Lahnie Johnson is president and founder of Acoustiblok, Inc., a NASA spinoff listed company in Tampa, Fla., that invented and manufactures the Acoustifence product.

“Acoustifence serves as a barrier and blocks high frequency sounds very well. The material actually flexes with certain frequencies. In the process of sound waves physically moving it, the product transforms sound wave energy into inaudible internal friction energy. It’s Underwriters Laboratories listed and has attained an STC (Sound Transmission Class) of 28 decibels in independent laboratory tests,” said Johnson.

“Like all our [products](#), Acoustifence is made in the USA with all USA materials. Besides the primary benefit of reduction in perceived levels, there are many reasons why Acoustifence is being used not only in the United States, but across the globe for many applications,” he said.

“There are many reasons why Acoustifence is a good solution for pickleball noise. For homeowner associations and developers, Acoustifence easily attaches to existing fencing found around most existing pickleball courts and complexes and can be put up in a matter of hours with a few minor hand tools. It is easily configurable to add height and length so it can be used on fences of any size. The material is paintable to meet the needs of the environment,” said an Acoustiblok sales associate who has worked with various pickleball related customers

“There are vinyl photographic coverings for the fence called Acoustiblok landscapes. Hundreds of different unbelievably realistic landscapes are available, from vines and flowers to even antique brick wall, or stone fence photographs. So real one of our customers drove right by their home forgetting they had it installed,” he added.

“Acoustifence is also one of the best priced first response soundproofing solutions in the industry” .

Melissa Wood is community association manager at Country Roads RV Village. In a related World Fence News article about pickleball and Acoustifence, she said, “I can attest that Acoustifence material is not difficult to install, can be easily blended into the aesthetics, particularly if you have existing wind screens.” She added that Country Roads RV Village is located near Phoenix and other communities have seen the installation and have inquired about it.

Besides pickleball, Acoustifence is commonly used to quiet generator and motor noise at industrial sites, highway and construction related noise on bridges, mass transit rail line noise, shooting/gun range noise, and even dog kennel noise. It is also being used at college sports complexes and athletic parks and on private backyard residential fences to create a quieter and more peaceful environment.

“People are discovering that there are a lot of great uses for this modern day soundproofing product,” Johnson said.

Johnson went on to say, “We’re not just a soundproofing products company, we’re a noise solutions company. Sometimes, prior to the sale of Acoustiblok’s products, we perform computer-based sound propagation modeling when customers are unsure if Acoustiblok’s materials will work in their specific application.

“We use advanced software called Cadna-A, a top acoustical software made by DataKustic used in the prediction of environmental outdoor noise. It calculates sounds through mediums and different barriers and terrains. We have used it for pickleball-related customers who all have a different set of circumstances associated with their noise. We also use DataKustic’s Cadna-R software for prediction and presentation of inside noise in industrial facilities, rooms and workplaces.”

“We use this acoustical modeling to say to the potential customer ‘here’s your noise level now without Acoustiblok’s material and here’s the noise level with our material based on the noise information we have available to us right now.”

For more information about Acoustiblok Inc., or Acoustifence visit the Acoustiblok website (www.acoustiblok.com), send an Email to comeara@acoustiblok.com, or call 813-980-1400 ext. 3202 and ask for our Pickleball specialist, Charles O'Meara.

Finally, prepare to be amazed. This is a link to an excerpt from the **National Geographic Channel television show, Showdown of the Unbeatables**. We won the challenge by blocking the sound of the world's loudest train horn, a whopping 143 dB. But rather than watch a 30 minute show here is video clip of the box that we built with a loud guitar playing inside. The box is made with our namesake Acoustiblok barrier material, the basis for our Acoustifence (one layer of Acoustiblok in a wall assembly is more effective at blocking noise than 10 inches of poured concrete).
<https://vimeo.com/123010204>

Red and Green Paddle List

Here is the link to the approved paddle list from the community in Surprise, Arizona. While the list has not been recently updated, it still contains some valuable information about some of the paddles people are using. [Quiet Pickleball Paddle Approved/Banned List Noisy Pickleball Paddles list.](#)

Unfortunately, there is no 'Cone of Silence' to completely eliminate Pickleball noise. That's why I recommend setting a realistic expectation so the affected homeowners understand that you can reduce the noise (by 50% or even more), but you cannot make it completely disappear...unless you cease playing. Just my two cents.

As questions come up, I am an email or phone call away. Looking forward to speaking with you again.

Charles O'Meara, MBA | Director - Pickleball Noise Abatement | Acoustiblok, Inc....*Quieting the world*

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