Attractive, Durable Composite Sound Walls

Sound-mitigation fencing with a lightweight design for easy installation.

AcoustaShield sound barrier systems meet or exceed AASHTO and DOT sound wall guidelines.
Carsonite AcoustaShield™ sound barrier systems provide highly effective noise abatement along transportation corridors. AcoustaShield is exceptionally lightweight compared to traditional sound walls. In fact, the fencing systems can be easily installed by a small crew without the use of heavy lifting equipment.

Designed and produced using fiberglass strands and mat, the composite material’s maintenance-free construction saves time and money over the product’s lifetime. In hot, humid environments, the AcoustaShield composite construction will never rust. Further the materials will not deteriorate in salt-air climates, desert heat, or harsh, high-traffic environments.

The attractive, graffiti-resistant design provides superb UV protection for long-term performance in the field.

AcoustaShield Sound Barrier
PRE-CONSTRUCTION BENEFITS

- Proven performance addresses sound absorption concerns in local communities
- Winner of Federal Highway Administration’s Environmental Award of Excellence for Innovation
- Delivers remarkable decibel reduction per square foot per dollar performance
- Mitigation performance meets or exceeds AASHTO and many DOT sound wall guidelines
- No need for noisy, heavy equipment for wall installation
- Lightweight design reduces the number of delivery trucks needed and allows for easy storage near the job site
- Extremely fast installation
- Environmentally sound – no chemical preservatives, plus well suited for environmentally sensitive areas where heavy equipment may damage sensitive land

Valmont is a world leader in providing a variety of long-standing structures to commercial property owners, utilities, municipalities, transportation departments, and more.
AcoustaShield™ Sound Barrier Construction Benefits

- Can be easily modified and cut in the field for on-site changes/adjustments
- Spans up to 24-feet are available between either steel, concrete, or fiberglass posts.
- Remarkable durability to maintain attractive appearance during installation and for years to come.
- Lightweight, easily installed with minimal equipment and crew
- Easier and faster to install than concrete, wood, masonry, steel or aluminum
- Non-conductive properties add a measure of safety, security.

AcoustaShield sound barrier systems can be designed with below-grade, non-corroding, earth-retaining composite spans.
AcoustaShield™ is simple, fast and inexpensive to install.

Using a professional installation crew, the work may be completed in a fraction of the time required by masonry, concrete or other fence materials. Composite structures are easy to custom cut in the field to address uneven and steep terrain issues.

The composite planks and posts which comprise the AcoustaShield fencing systems are lightweight and can easily be hand-carried by installation professionals.
AcoustaShield™ is designed for long-term outdoor durability, vandal resistance, and ease of installation.

**AcoustaShield Sound Barrier**

**LONG-TERM BENEFITS**

- Engineered fiberglass composite construction is built to last up to 50 years
- Durable construction is rust-proof and corrosion-resistant
- Extremely low maintenance over the product life saves time, money
- In the event of vehicle impact or other damage, the panels are easy to repair or replace
- Graffiti-resistant properties maintain the product’s good looks
- A variety of Federal Standard 595B-compliant colors, and RAL colors available upon request
- Non-conductive properties add a measure of safety
- Excellent freeze/thaw resistance, moisture resistance, and fire resistance

12-inch high absorptive panels with traffic-facing view (left) and neighborhood-facing view (right).

Attractive and crafted for long-term durability, the AcoustaShield Sound Barrier System is designed for use in all climate types.
Key Terms

**STC:** Sound Transmission Class (Coefficient) is the measure of how well a material blocks sound.

**NRC:** Noise Reduction Coefficient is the measure of how sound is absorbed by an object.

AcoustaShield sound barrier systems are available in 12-inch high or 6-inch high horizontal composite panels.

<table>
<thead>
<tr>
<th>TYPE OF SYSTEM</th>
<th>12&quot; REFLECTIVE</th>
<th>12&quot; ABSORPTIVE</th>
<th>6&quot; REFLECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVERAGE STC RATING</td>
<td>35</td>
<td>36</td>
<td>28</td>
</tr>
<tr>
<td>NRC VALUE</td>
<td>0.15</td>
<td>1.05</td>
<td>0.15</td>
</tr>
</tbody>
</table>

A 6-inch high panel, which is filled with recycled tire rubber, is available upon request.
See How AcoustaShield Compares To Other Fencing Materials

See the material comparison tables below for design and installation factors to consider when comparing AcoustaShield sound barrier fencing systems to concrete, wood, and metal fencing materials.

### MATERIAL COMPARISON - DESIGN FACTORS

<table>
<thead>
<tr>
<th></th>
<th>AcoustaShield</th>
<th>Concrete</th>
<th>Wood</th>
<th>Metal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TYPE OF SYSTEM</strong></td>
<td>POST &amp; PANEL</td>
<td>POURED/POST &amp; PANEL</td>
<td>POST &amp; PANEL</td>
<td>POST &amp; PANEL</td>
</tr>
<tr>
<td><strong>MOISTURE RESISTANCE</strong></td>
<td>EXCELLENT</td>
<td>GOOD</td>
<td>POOR</td>
<td>POOR</td>
</tr>
<tr>
<td><strong>FREEZE-THAW RESISTANCE</strong></td>
<td>EXCELLENT</td>
<td>FAIR</td>
<td>POOR</td>
<td>POOR</td>
</tr>
<tr>
<td><strong>TYPICAL SERVICE LIFE</strong></td>
<td>50+ YEARS</td>
<td>50 YEARS*</td>
<td>25 YEARS</td>
<td>25 YEARS</td>
</tr>
<tr>
<td><strong>BASE OF INSTALLATION</strong></td>
<td>EXCELLENT</td>
<td>FAIR</td>
<td>FAIR</td>
<td>FAIR</td>
</tr>
<tr>
<td><strong>FIRE RESISTANCE</strong></td>
<td>EXCELLENT</td>
<td>EXCELLENT</td>
<td>POOR</td>
<td>EXCELLENT</td>
</tr>
<tr>
<td><strong>GRAFFITI RESISTANCE</strong></td>
<td>EXCELLENT</td>
<td>POOR</td>
<td>POOR</td>
<td>EXCELLENT</td>
</tr>
<tr>
<td><strong>WEIGHT PER SQUARE FOOT</strong></td>
<td>5-8 lbs.</td>
<td>100-125 lbs.</td>
<td>30-45 lbs.</td>
<td>5-7 lbs.</td>
</tr>
</tbody>
</table>

*Compared to AcoustaShield sound barrier, concrete, wood, and metal products may have a much shorter service life in areas where de-icing road treatments are used for snow and ice.

### MATERIAL COMPARISON - INSTALLATION FACTORS

<table>
<thead>
<tr>
<th></th>
<th>AcoustaShield</th>
<th>Concrete</th>
<th>Wood</th>
<th>Metal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HEAVY EQUIPMENT REQUIRED</strong></td>
<td>NO</td>
<td>YES</td>
<td>NOT ALL</td>
<td>YES</td>
</tr>
<tr>
<td><strong>CAN BE USED ON BRIDGES</strong></td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td><strong>CHALLENGING TERRAIN</strong></td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td><strong>ONSITE CHANGES/ADJUSTMENTS</strong></td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>
Precision crafted for outstanding performance
A time-proven performer, Carsonite is a leader in developing composite sound barriers, delineators, and markers for the transportation industry.

- **Environmentally friendly** - Winner of Federal Highway Administration’s Environmental Award of Excellence for Innovation.

- **Ease of installation** - Our lightweight composite components save time, manpower, equipment, and money during installation.

- **Custom-fit adjustments in the field** - AcoustaShield can be easily modified and cut during installation for quick on-site changes/adjustments.

- **Built to last** - Fiberglass composite components will never rust and perform exceptionally well in high-traffic environments found in busy metropolitan areas, humidity and salt-air environments along coastlines, and in cold, snowy environments where deicing agents are frequently used.

- **US designed and built** - AcoustaShield is engineered and produced in Newberry, SC. The fence panels are manufactured from fiberglass reinforced thermoset material using a heated pultrusion process that delivers consistent quality and performance.

- **Safety** - Non-conductive design is ideal for installation in high-traffic and heavily populated areas.

- **Proven performance** - With thousands of miles of sound barrier installed, our composite fencing systems have been used for years along busy highways, railways, and other transportation corridors.

To learn more about the features and benefits of AcoustaShield Sound Barrier Systems, contact Carsonite.

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