

PVC NOISE BARRIER PRODUCT GUIDE

A LIGHTWEIGHT POST-AND-PANEL NOISE BARRIER SYSTEM
ENGINEERED FOR OPTIMAL ACOUSTIC PERFORMANCE



SILENTIUM
GROUP INC.

SILENTIUMGROUPCO.COM

A CUSTOMER FOCUSED, ALTERNATIVE NOISE BARRIER END-SOLUTION PROVIDER

Silentium is your reliable source for alternative transportation and building noise barrier solutions. We provide engineered noise barrier systems for many sectors and applications that are lightweight, eco-friendly, and safety tested to surpass standards in North America.

PVC NOISE BARRIERS & PRIVACY SCREENS

Extruded Rigid PVC (RPVC) is a durable and easy-to-install wall panel. Our complete post-and-panel wall systems can be designed to withstand harsh roadside conditions, but lightweight and versatile atop bridges and buildings.

APPLICATIONS

**Industrial, Commercial,
Institutional (ICI) Buildings**

Roads, Highways & Bridges

Rail & Transit

Residential Developments

Building Rooftop Screens

Perimeter Walls & Enclosures



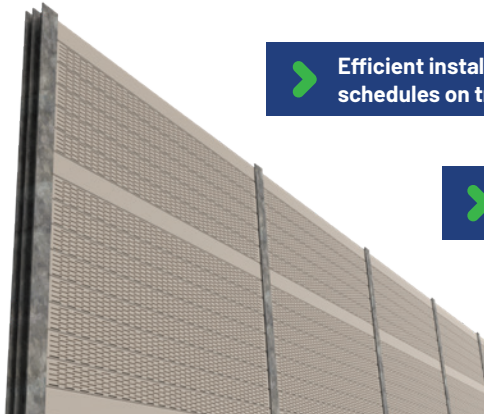
Efficient installation helps to keep construction schedules on track



Reach a range of noise attenuation with noise absorptive or reflective panels



Maintenance Free & UV protected for all-weather conditions



Processing Facility Rooftop Barrier
Niagara Falls, ON, CAN

A TRIED & TESTED NOISE WALL OPTION

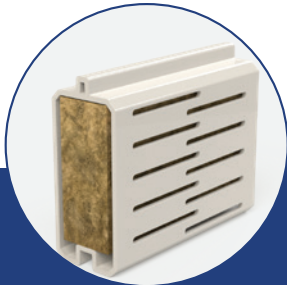
Our PVC noise walls can be engineered to custom application needs, as well as supplied as a turn key wall system that is easy and safer to install within limited space constraints of building properties and roadsides.



STRUCTURAL + ACOUSTIC PANELS IN ONE

PVC is a durable wall panel option for roadside to rooftop.

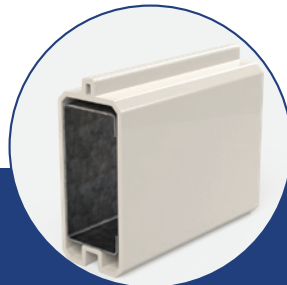
Silentium offers two types of acoustic PVC panels:



PERFORATED

Absorptive Panels

- Manufactured with slots on the front face of the panel and acoustic mineral wool enclosed within the absorptive panel.
- Proven and tested properties to consistently reduce noise.
- Noise absorptive panels can be combined with reflective panels.



SMOOTH

Structural Panels

- Structural panels contain a galvanized metal channel within it, making this a reflective noise panel.
- Structural panels provide strength to the wall by moving forces on the barrier to the vertical posts.
- The quantity of structural panels required is determined by specific wind loads, post spacing and wall height of each project.

FEATURES & BENEFITS

Lightweight panels

- Makes installation considerably easier.
- Reduces material weight requirements for roof and bridge designs.
- Reduces need for heavy equipment for installation.

Acoustic properties

- Single-sided absorptive.
- Reflective panels.

Durability

- Mineral wool and pvc does not rust or rot and is impervious to rain, snow, and ice.

Maintenance-free

- UV protected for all-weather conditions.
- Panels are free-draining.

Easy-installation

- Lightweight panels are easier to handle using smaller lift equipment.
- Tongue & Groove connection.

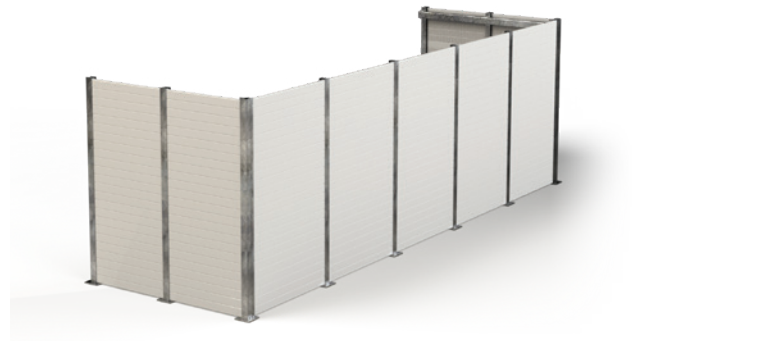
Architectural Finish

- Standard white or tan colors.
- Custom colors available.
- Smooth, flat finish.

BUILDINGS

WE TAILOR SOLUTIONS THAT HELP INNOVATIVE BUSINESSES.

Often one of the last pieces of a new building or retrofit project is noise abatement. Essential to the building's operation, rooftop mechanical and cooling equipment cause unwanted noise and need to be controlled.



DESIGN DETAILS

Posts:

- Standard Steel posts.
- 10'-0" post spacing.

Footings:

- Adaptable to various foundation types.

Mounting:

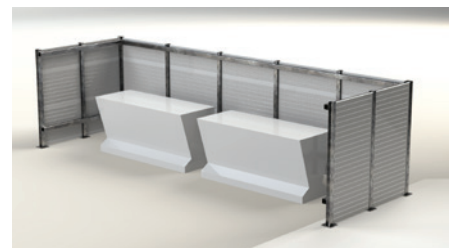
- Structure or ground-mounted designs.
- Gravity-mounted design options available for roofs.

Installation:

- Once footings are prepared and posts are installed, panels are stacked until desired height is reached.
- Panels are constructed with a tongue and groove connection system.



TEST NO.	DESCRIPTION
ASTM C423	0.95 NOISE REDUCTION COEFFICIENT (NRC)
ASTM E90-09	35 SOUND TRANSMISSION CLASS (STC)
ASTM E84	FIRE TESTING
ASTM D1435 - 2013	PHYSICAL OUTDOOR WEATHERING
ASTM G154 - 16	ACCELERATED WEATHER TESTING
WIND LOADS	UP TO 48 PSF



TRANSPORTATION

WE HELP KEEP TRANSPORTATION MOVING.

Reducing the noise emissions produced by all modes of transportation, Departments of Transportation and Ministries of Transportation across North America install noise barrier walls along busy roadways and growing rail networks to address noise concerns for the public.

TEST NO.	DESCRIPTION
ASTM D4226	IMPACT RESISTANCE
CODE	DESCRIPTION
AASHTO LRFD	BRIDGE DESIGN SPECIFICATIONS, 9TH ED

Our PVC systems are designed and tested for the harshest roadside conditions.

DESIGN DETAILS

Posts:

- Standard Steel posts.
- 10'-0" post spacing.

Footings

- Adaptable to various foundation types.

Mounting:

- Structure mounted (bridges) or ground-mounted designs.

Installation:

- Once footings are prepared and posts are installed, panels are stacked until desired height is reached.
- Panels are constructed with a tongue and groove connection system.





SILENTIUM
GROUP INC.

An innovation-led group transforming the noise barrier market, Silentium is an alternative source for civil, building and energy construction solutions.

Motivated by tomorrow's challenges, we are a dynamic partner making noise reduction simple, accessible, and sustainable.

1-866-801-0999 • INFO@SILENTIUMGROUPCO.COM

SILENTIUMGROUPCO.COM