ACRYLITE®

ACRYLITE® Soundstop
Wind Barrier System

Transparent Noise Barriers

Product
ACRYLITE® Soundstop Wind Barrier Systems can provide effective wind reduction on bridges to help reduce bridge closures and the risk of overturning of trucks and vehicles from high wind conditions.

It is imperative that each project be analyzed, designed, and engineered according to project specifications.

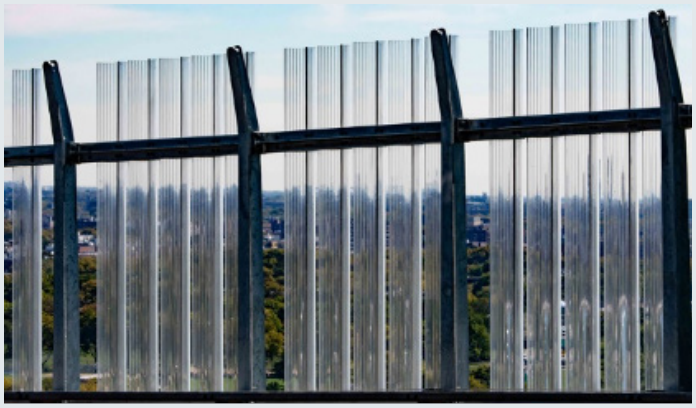
ACRYLITE® Soundstop Wind Barrier System with "C" shapes on the Verrazano Bridge in New York City

Project Definition
The primary component used in a wind barrier project is typically thermoformed into a curved element. The dimension and shape of the element must be engineered for each specific project. In addition, the thickness of ACRYLITE® Soundstop GS CC sheet must be determined through detailed wind load evaluations and calculations.

Along with the curved element, an EPDM gasket profile is also needed. A chemical compatibility test must be conducted with ACRYLITE® Soundstop GS CC to ensure suitability with the acrylic.

POLYVANTIS Sanford LLC and its partner Superior Transparent Noise Barriers can assist with any design and specification work necessary.

Benefits
- **Visibility –** Retains sightlines to prevent lost views of the surrounding environment including bodies of water, mountains, & other scenic areas.
- **Lightweight –** Complete systems weigh as little as 5-10 lbs / ft^2. depending on thickness of the ACRYLITE® Soundstop panel. Increasing barrier heights and design wind loads are the main factors affecting system weight.
- **Guaranteed Performance –** Industry leading 30-year warranty against yellowing through decades of exposure to outdoor elements and UV sunlight.
- **High Impact Strength –** Withstands the impact of stones and other debris from vehicle traffic, plowing operations, and hurricane force winds.
- **Safety Features –** ACRYLITE® Soundstop GS CC panel option prevents panel fragments from falling if an accident causes panels to fracture.
- **No Cleaning Required –** Rain rinses away common road dirt, sand, and de-icing agents.
- **Easy to Maintain –** Graffiti is quickly removed with approved, environmentally safe products. Unaffected by common glass etching acids.
- **Design Flexibility –** Many types of ACRYLITE® Soundstop panels can be used, including colorless, transparent colors, translucent, frosted, or panels with Bird Protection stripes.



POLYVANTIS

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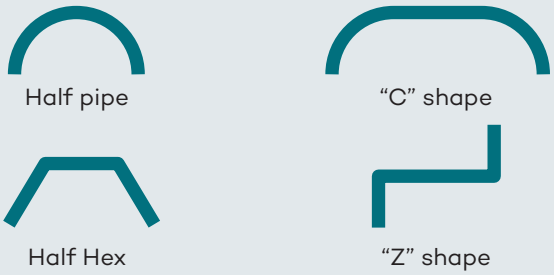
Product Offering

- ACRYLITE® Soundstop Wind Barrier systems must be customized to fit each specific project and often include engineered design calculations and drawings.
- ACRYLITE® Soundstop Wind Barrier systems may use standard ACRYLITE® Soundstop XT sheet, XT with Bird Guard, or fragment retaining GS CC sheet.

Example Elements

Below are a few examples of various shaped element types that have been used for numerous wind barriers on bridges throughout the US and Europe. Each specific shape was carefully designed to accommodate the windloads for the specific project.

Shape options:

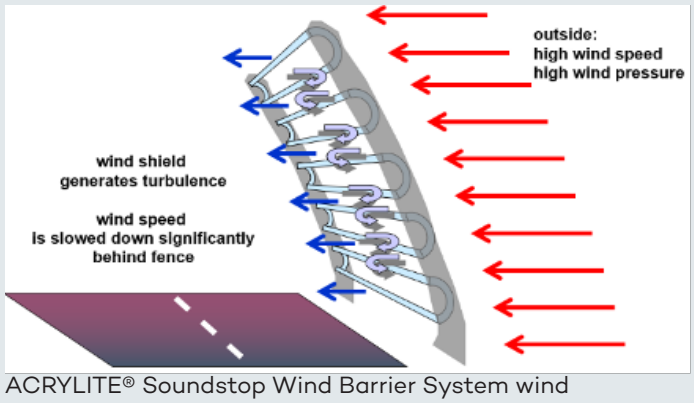


These shapes are lightweight, offer high transparency, and can be thermoformed for maximum stiffness and minimum deflection.

ACRYLITE® Soundstop Wind Barrier “Half Pipe” design

ACRYLITE® Soundstop Wind Barrier “C” shape design

ACRYLITE® Soundstop Wind Barrier System with “Z” shapes on the Echingen Viaduct Boulogne-Sur-Mer In France



ACRYLITE® Soundstop Wind Barrier System wind considerations

Wind Tunnel Testing
Wind tunnel testing is recommeded and may be necessary to validate the engineering calcuations. Suitable prototypes can be manufactured and supplied by POLYVANTIS Sanford LLC upon request.

Windshield elements are typically inclined inwards so as to discourage climbing and should be detailed as such. The design should ensure that all elements can drain freely and do not allow water to accumulate on their surfaces or within joints.

ACRYLITE® Soundstop Wind Barrier panels undergoing a wind tunnel test for efficacy & wind deflection

Other Example Installations


ACRYLITE® Soundstop Wind Barrier System with “Z” shapes on the Reichenbach viaduct in Germany


ACRYLITE® Soundstop Wind Barrier System with “C” shapes on the Crni Kal viaduct in Slovenia


ACRYLITE® Soundstop Wind Barrier System with “C” shapes on the Queensferry Crossing Bridge in Scotland, UK


ACRYLITE® Soundstop Wind Barrier System with “C” shape design using colorless Soundstop GS CC on the Crni Kal viaduct in Slovenia

ACRYLITE® Soundstop Wind Barrier Systems are exclusively sold through SUPERIOR Transparent Noise Barriers LLC.

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