



**High-Performance
material solution for
noise, wind and water barriers**

POLYVANTIS

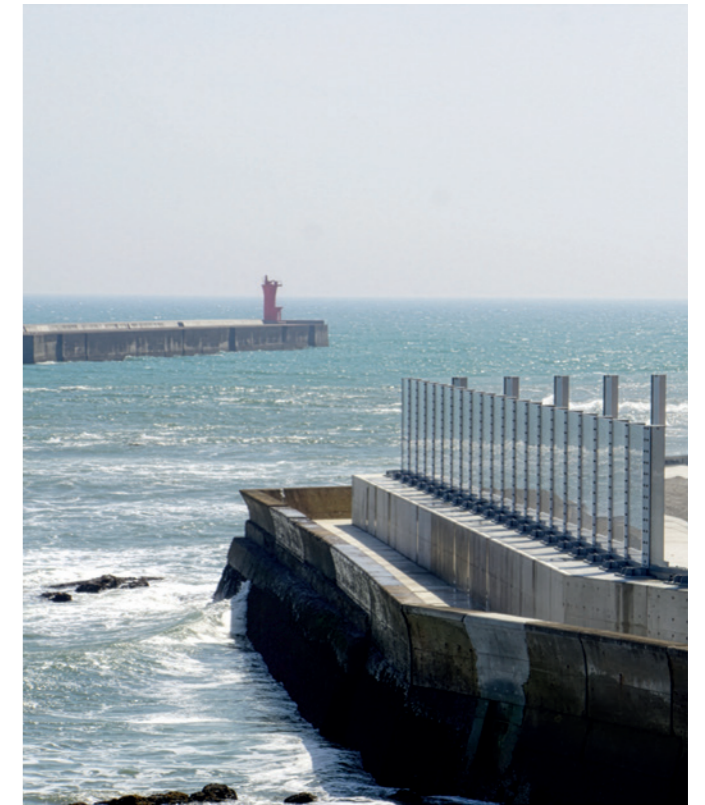
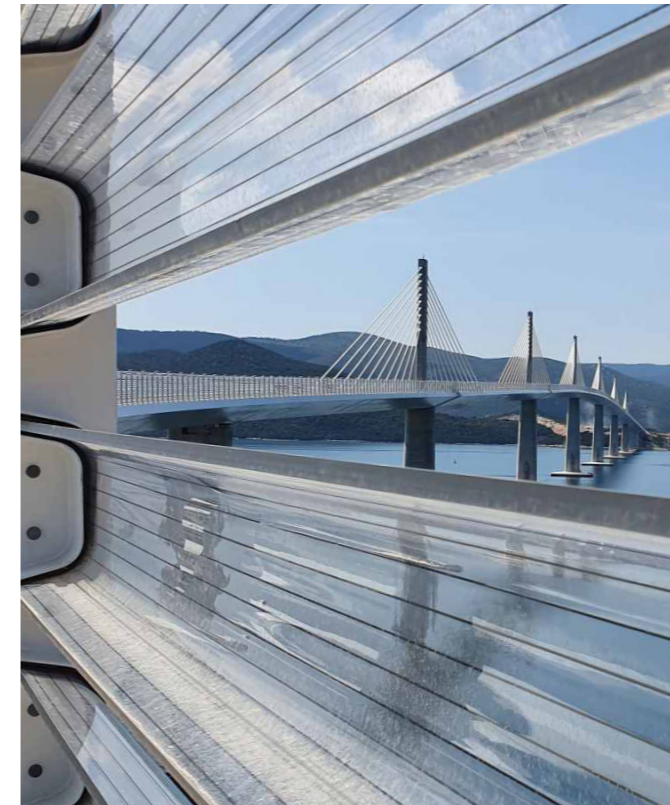


Starting Point

People are often just as defenseless against noise as they are against wind, water or flooding. High-quality barriers are crucial to protect them as effectively as possible from these influences.

- **Noise** is harmful to health. By disrupting sleep and elevating stress hormone levels, it increases the risk of a heart attack. Noise barriers alongside railway lines, highways and other busy roads reduce traffic noise levels in surrounding residential areas and near schools, hospitals and office buildings.
- **Storms** and strong crosswinds, on bridges and in other exposed areas, pose a significant risk of accidents for road and rail transport. Wind protection barriers enhance road user safety and help prevent the closure of important transport links.

- **Flooding** caused by heavy rain and storm surges is a challenge all over the world. Flood barriers significantly lower the risk of human harm and property loss in riverside and coastal communities facing floods or tsunamis. Investing in such infrastructure can save lives and reduces the financial impact on residential areas and transport networks.



Applications

POLYVANTIS offers high-quality materials for protective walls and barriers: PLEXIGLAS® and LEXAN™ Soundstop sheet solutions.

Noise Barriers

- **Noise control barriers** made from PLEXIGLAS® Soundstop acrylic and LEXAN™ Soundstop PC sheets have proven their effectiveness for decades. Thanks to their high resistance to UV and weathering, they are durable and robust, remaining permanently transparent without yellowing – with a 30-year guarantee for PLEXIGLAS® and a 10 to 15-year limited-written guarantee for LEXAN™ sheet solutions..

Protective barriers made from high-quality PLEXIGLAS® polymethylmethacrylate (PMMA) and shatter-proof LEXAN™ polycarbonate (PC) reliably reduce traffic noise and require significantly less space than noise protection embankments. Another benefit of the barriers is their appearance, which allows them to blend subtly into their surroundings. Highly transparent, they cast almost no shadow and provide road users with an unobstructed view of the landscape, avoiding tunnel effects that can cause fatigue. Some product variants are available with enhanced splinter binging and bird-protection strips.

Wind Barriers

- **Wind barriers** made from PLEXIGLAS® Soundstop are lightweight, shatter-proof, easy to process and resistant to UV and weathering. The durable sheet material is also available with integrated shatter protection and bird deterrence.

Wind barriers made from C-shaped PLEXIGLAS® Soundstop elements are highly effective on bridges. Their advantage is that the gaps between the elements prevent wind and storm gusts from acting on a closed surface, thereby reducing the impact of loads from crosswinds. At the same time, the barriers reduce wind speed by around half. Their delicate design integrates seamlessly into the bridge architecture, while their lightweight construction enables slimmer bridge structures. PLEXIGLAS® Soundstop GS CC includes polyamide fibers as shatter protection and can be used on bridges without additional nets.

Flood Barriers

- **Flood barriers** made from durable PLEXIGLAS® Soundstop GS are pressure-resistant, lightweight, robust, easy to process and resistant to UV and weathering.

Barriers made from the highly pressure-resistant PLEXIGLAS® acrylic protect coastal roads, promenades and building fronts around the world from heavy rain and flooding. In key coastal areas, they are also used as tsunami barriers. Thanks to their unmatched transparency, they blend into the surroundings without creating a barrier effect, allowing a clear view of the sea.

Product Overview

PLEXIGLAS® Soundstop PMMA Sheet Solutions for Noise, Wind and Water Barriers

Colors							
Transparent							
Clear	Midnight Blue	Danish Green	Smoky Brown	Topaz	Ruby	Amethyst	Citrine
	Steel Blue	Forest Green					
	Sky Blue	Sea Green					
	Sapphire	Spring Green					
		Emerald					
Opaque							
Light Grey							

Type	Description
PLEXIGLAS® Soundstop XT	Extruded transparent PMMA; various thicknesses, lengths over 6,000 mm, width 2,050 mm on request
PLEXIGLAS® Soundstop XT BirdGuard	Extruded transparent PMMA with internal bird-deterrent stripes; various thicknesses, lengths over 6,000 mm, width 2,050 mm on request
PLEXIGLAS® Soundstop GS	Cast PMMA; transparent or opaque; translucent and matte on one side on request
PLEXIGLAS® Soundstop GS CC	Cast PMMA; transparent or opaque; translucent and matte on one side on request; with integrated splinter-free black polyamide threads lengthways and sideways; transparent threads on request

LEXAN™ Soundstop PC Sheet Solutions for Noise Control

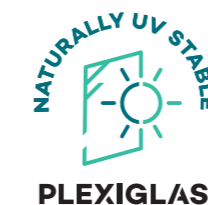
Colors				
Transparent				
Clear	Bronze	Opal White	Grey	IR Green
Type		Description		
LEXAN™ EXELL™-D PC Sheet		Transparent solid polycarbonate sheets with UV protective coating on both sides. The material is 250 times more impact-resistant than glass and almost unbreakable, making it ideal for large-scale noise barriers that provide enhanced protection against damage from accidents and vandalism. Its lightweight design and formability make the material easy to process while offering extensive design freedom.		

Guarantees

The high-quality products have proven their effectiveness in practice for many years. POLYVANTIS provides extensive guarantees:

PLEXIGLAS® Soundstop acrylic:

- No yellowing for 30 years
- Maximum transparency for 30 years



LEXAN™ EXELL™-D polycarbonate sheet:

- No weathering for 10 years
- Guaranteed shatter-proof for 10 years



POLYVANTIS Locations



Please feel free to contact our experts world-wide with any questions you may have.

POLYVANTIS
www.polyvantis.com

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Polycarbonate products are sold globally under the trademark LEXAN™ Film & Sheet, owned by SABIC or its subsidiaries or affiliates.

Certified to DIN EN ISO 9001 (Quality) and DIN EN ISO 14001 (Environment).

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