



FLORA BIS Sp. z o.o.



Polish Quality

Premium Acoustics

European Standard





Family-Driven. Innovation-Led. Together.
**We build reliable silence
you can depend on.**



Performance that meets standards
Quality that exceeds expectations.

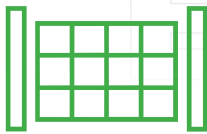
Who are we?

Flora Bis Sp. z o.o. is a Polish company with over 30 years of experience, specializing in the production of acoustic panels (noise barrier systems) and steel structures for road infrastructure projects. Operating as a limited liability company since 2009, we continue a family business tradition that dates back to 1994.

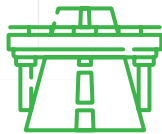
From the very beginning, we have combined modern technologies with hands-on expertise and a strong commitment to quality, delivering products that meet the highest performance and manufacturing standards. Initially focused on metal products for home, garden, and industrial applications, we gradually evolved in response to the growing demands of the infrastructure sector. Today, we specialize in comprehensive acoustic solutions for road investments across Poland and Europe.



What we do?



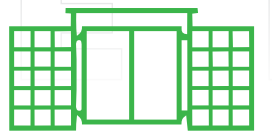
Acoustic Panels



Steel structures for road infrastructure projects



Emergency, technical and access doors



Gates and associated infrastructure components

"GREEN WALL" ACOUSTIC PANELS

Silence that grows in harmony
with its surroundings.

FLORA GREEN WALL

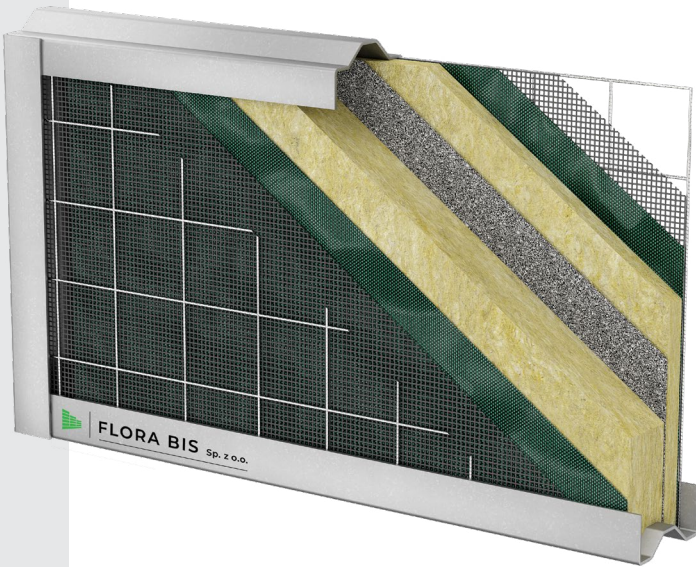
FLORA C Sound-Absorbing Acoustic Panel is one of the most versatile and highly regarded solutions in the noise barrier segment. It combines high noise reduction performance with the distinctive aesthetics of a "green wall", allowing for natural coverage with climbing plants.

Various options for different needs - all variants are double-sided sound-absorbing and fire-resistant:

- **Flora C Type C3** - a universal option with balanced sound absorption parameters
- **Flora C Type C4** - enhanced insulation performance for more demanding applications
- **Flora C Type C6** - maximum noise reduction efficiency

FLORA C panels are precisely adapted in width to standard HE 160 steel columns, ensuring seamless integration into typical road infrastructure systems. Installation in columns with larger cross-sections is also possible.

- Standard panel height: up to 2000 mm,
- Maximum panel length: 6000 mm.



Key Technical Parameters

SOUND INSULATION AND SOUND ABSORPTION PERFORMANCE

VARIANT	WEIGHTED SOUND REDUCTION INDEX (RW)	AIRBORNE SOUND INSULATION INDEX (DLR)	SOUND ABSORPTION INDEX (DLα)
Type C3	32 dB	27 dB	15 dB (Class A4)
Type C3 (rear side)	-	-	11 dB (Class A4)
Type C4	33 dB	29 dB	15 dB (Class A4)
Type C6	38 dB	33 dB	15 dB (Class A4)

SAFETY AND RESISTANCE

PROPERTY	CLASS / RESULT	STANDARD
Reaction to fire	Class 2	PN-EN 1794-2
	D-s1,d0	PN-EN 13501-1+A1
Falling object impact (400 kg)	Class 6 (6.0 kJ)	PN-EN 1794-2
Stone impact resistance	Fulfilled / No damage	PN-EN 1794-2

DURABILITY

PARAMETER	VALUE	STANDARD
Durability	Min. 30 years*	PN-EN 14389

* Provided that installation, use and maintenance instructions for the panels are followed.

ALUMINIUM ACOUSTIC PANELS

Maximum acoustic performance
with minimal structural weight.

FLORA ALU

The ALUMET system has been engineered for long-term performance, exceptional weather resistance, and full compliance with stringent safety standards - across road, industrial, and railway infrastructure, including high-speed rail applications exceeding 160 km/h.

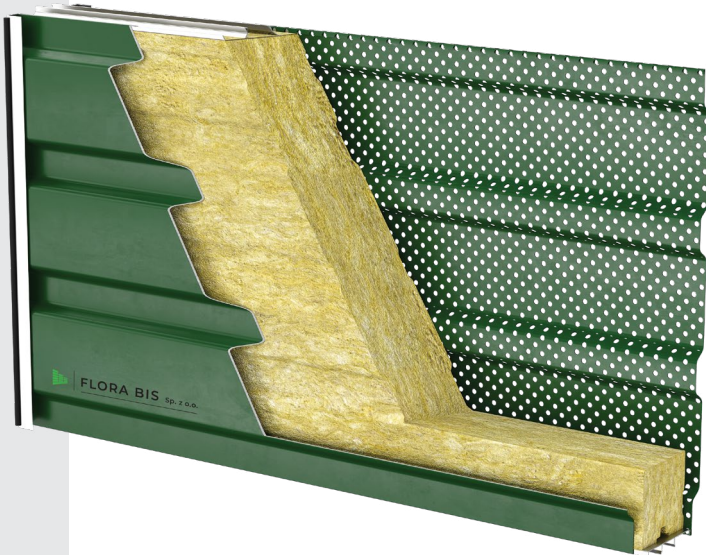
An Effective Noise Protection Solution

The ALUMET system is available in several variants, designed to meet different acoustic requirements and application conditions:

- **ALUMET 1** – when the noise source is located on one side only (e.g. road, railway line)
- **ALUMET 2** – when effective noise separation between zones is essential
- **ALUMET 3** – when noise occurs on both sides and maximum sound attenuation is required

FLORA ALU panels are precisely adapted in width to standard HE 160 steel columns. Installation in columns with larger cross-sections is also possible.

- Standard panel height: 500 mm.
- Maximum panel length: up to 5000 mm.



Key Technical Parameters

SOUND INSULATION AND SOUND ABSORPTION PERFORMANCE

PARAMETER	ALUMET 1	ALUMET 2	ALUMET 3
Weighted sound reduction index R_w	31 dB	31 dB	31 dB
Airborne sound insulation index DLR	25 dB (B3)	25 dB (B3)	26 dB (B3)
Sound absorption index $DL\alpha$	16 dB (A4)	–	16 dB (A4)

SAFETY AND DURABILITY

PROPERTY	CLASS / RESULT	STANDARD
Reaction to fire	Class 3	PN-EN 1794-2
Falling object impact (45 kg)	Result C, Class 3 (0.5 kJ)	PN-EN 1794-2
Stone impact resistance	Fulfilled / No damage	PN-EN 1794-2
Durability	Min. 30 years*	PN-EN 14389

* Provided that installation, use and maintenance instructions for the panels are followed.



WOODEN ACOUSTIC PANELS

Natural silence. A natural choice.

FLORA AKUWOOD

Wooden Acoustic Panels are the most environmentally friendly solution in our portfolio, developed for projects where effective noise protection must harmonize with a natural appearance and environmental responsibility.

We use high-quality softwood (spruce or pine) in compliance with PN-D-94021:2013.

Durability Rooted in Nature

The timber is protected through pressure impregnation to Class 4, ensuring high resistance to moisture and variable weather conditions, biological corrosion (fungi and mould), aggressive chemical environments, and fire exposure.

FLORA AKUWOOD panels are compatible with HE 100 to HE 200 steel columns.

- Standard panel height: up to 2500 mm.
- Maximum panel length: up to 5000 mm.



Key Technical Parameters

SOUND INSULATION AND SOUND ABSORPTION PERFORMANCE

PARAMETER	AKUWOOD 50	AKUWOOD 65
Airborne sound insulation index DLR	26.9 dB	30 dB
Sound absorption index DLa	8 dB	10 dB

SAFETY AND DURABILITY

PROPERTY	CLASS / RESULT	STANDARD
Falling object impact (45 kg)	Class 3 (0.5 kJ)	PN-EN 1794-2
Stone impact resistance	Fulfilled	PN-EN 1794-1:2005
Durability	Min. 30 years*	PN-EN 14389

* Provided that installation, use and maintenance instructions for the panels are followed.

WOODEN ANTI-GLARE PANELS

Light control solution
for road infrastructure.

FLORA WOOD

Wooden Anti-Glare Panels are designed as an effective visual barrier, protecting drivers, pedestrians, and wildlife from glare caused by moving vehicle headlights.

A Structure Based on Proven Solutions

The product is manufactured from high-quality softwood (spruce or pine) in compliance with PN-D-94021:2013, with a structural strength class of C24 according to PN-EN 338.

Protection and Durability

The panels are protected through pressure impregnation to Class 4, ensuring enhanced resistance to environmental exposure.

Following impregnation, the panels have a greenish tint, which naturally transforms within approximately six months into a grey patina that blends harmoniously with the surrounding environment.

FLORA WOOD panels are compatible with HE 100 to HE 200 steel columns.



Key Technical Parameters

SOUND INSULATION AND SOUND ABSORPTION PERFORMANCE, SAFETY AND DURABILITY

PARAMETER	VALUE	STANDARD
Airborne sound insulation index DLR	25 dB	PN-EN 1793-2
Reaction to fire	Class 2 / C-s3,d0	PN-EN 1794-2 / PN-EN 13501-1+A1
Falling object impact (45 kg)	Class 3 (0.5 kJ)	PN-EN 1794-2
Stone impact resistance	Fulfilled / No damage	PN-EN 1794-2
Durability	Min. 30 years*	PN-EN 14389

* Provided that installation, use and maintenance instructions for the panels are followed.



COMPOSITE PANELS

Minimal maintenance.
Maximum predictability.

NEW

FLORA COMPOSITE

Composite Acoustic Panels are engineered for infrastructure projects where repeatability of technical parameters, high resistance to external conditions, and low operating costs are of key importance.

By incorporating advanced composite materials, these panels eliminate common issues associated with traditional solutions, such as water absorption, biological degradation, and the gradual loss of performance over time.



TRANSPARENT PANELS

Where silence must
not obscure the world.

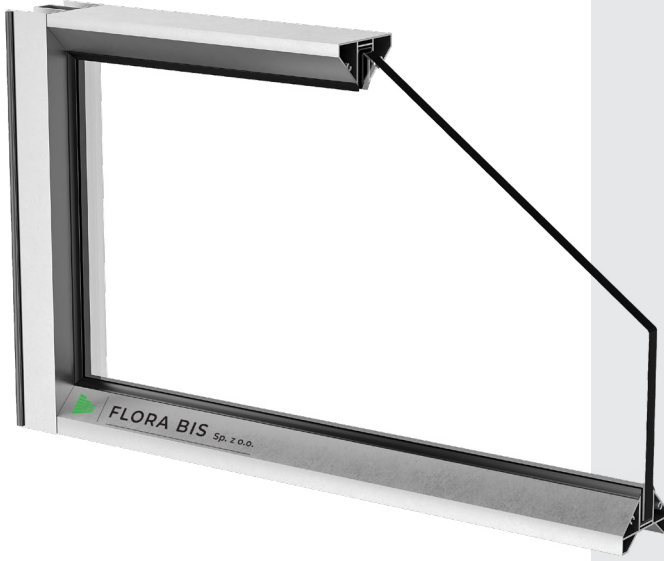
NEW

FLORA PLEX

Transparent Acoustic Panels are designed for locations where effective noise protection must go hand in hand with maintaining visibility, access to daylight, and the aesthetic quality of the surroundings.

Ornithological Protection - Safety in Harmony with Nature

We offer custom printing of any pattern on transparent panels to increase the visibility of obstacles for birds, without compromising transparency or visual appeal.



INDICATOR	PLEX 8MM	PLEX 12MM
Airborne sound insulation index DLR	28 dB	29 dB

SOIL-BASED ACOUSTIC PANELS

Maximum acoustic insulation efficiency through mass and the natural properties of soil.

FLORA SOIL

Soil-Based Acoustic Panels represent the most effective solution in acoustic insulation, applied where the real reduction of noise propagation at its source is of key importance. Owing to their substantial mass and the natural sound-dampening properties of earth, these systems provide the highest level of noise reduction among available noise barrier solutions.

How Do Soil-Based Acoustic Panels Work?

- Effectively block the direct transmission of sound waves
- Limit sound reflection and propagation
- Ensure stable acoustic performance throughout the entire service life

Soil-Based Acoustic Panels Consist of:

- Steel load-bearing frames installed on properly prepared foundations
- Modular units bolted together using screws and tension rods
- Internal lining with acoustic mats
- Infill of soil and aggregate

Key Benefits

- Maximum acoustic insulation efficiency
- Very high durability and resistance to weather conditions
- Self-supporting, stable structure
- Possibility of using locally sourced soil
- An ideal solution for infrastructure projects with high performance requirements



Key Technical Parameters

SOUND INSULATION AND SOUND ABSORPTION PERFORMANCE

PARAMETER	VALUE	STANDARD
Airborne sound insulation index DLR	48 dB (Class B3)	PN-EN 1793-2
Sound absorption index DLa	10 dB (Class A2)	PN-EN 1793-1

DIMENSIONS AND DESIGN FLEXIBILITY

PARAMETER	VALUE
Maximum panel height	Up to 8000 mm
Length of a single module	Adapted to project requirements

SAFETY AND RESISTANCE

PROPERTY	CLASS / RESULT	STANDARD
Reaction to fire	Class 2	PN-EN 1794-2
Falling object impact (45 kg)	Class 3 (0.5 kJ)	PN-EN 1794-2
Falling object impact (400 kg)	Class 6 (6.0 kJ)	PN-EN 1794-2
Stone impact resistance	Fulfilled	PN-EN 1794-1:2005

DURABILITY

PARAMETER	VALUE	STANDARD
Durability	Min. 30 years*	PN-EN 14389

* Provided that installation, use and maintenance instructions for the panels are followed.



STEEL STRUCTURES

The foundation for acoustic and anti-glare systems

Steel structures are a key component of every acoustic panel and anti-glare system. The stability safety and long-term reliability of the entire installation depend on their quality precision of manufacture and durability.

We specialize in the design and production of steel load-bearing elements in particular columns for acoustic and anti-glare panels intended for road, railway and industrial applications.

Precision Manufacturing and Full Finishing Flexibility

Our range includes steel columns:

- Hot-dip galvanized
- Hot-dip galvanized and additionally powder coated in any RAL colour

Production is carried out by an experienced team using modern machinery and equipment enabling us to meet the expectations of even the most demanding infrastructure projects.



Compliance with Standards and Safety

EXC2	EXC3	PN-EN 1090	CE
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Our steel structures are manufactured in accordance with applicable requirements and may be CE marked.

Long-Term Corrosion Protection

The hot-dip galvanizing process carried out in accordance with PN-EN ISO 1461 provides effective protection of steel against corrosion and atmospheric exposure. The resulting zinc-iron alloy layer:

- Insulates steel from moisture
- Protects against rust
- Significantly extends the service life of the structure

Optional coating further enhances corrosion resistance while providing high aesthetic value which is particularly important in public spaces.



GATES AND EMERGENCY DOORS

Secure access.

Efficient evacuation.

Full system functionality.

FLORA SAFE SYSTEMS

We design and manufacture complete complementary solutions that integrate seamlessly with acoustic and anti-glare noise barrier systems while maintaining their structural aesthetic and functional continuity.

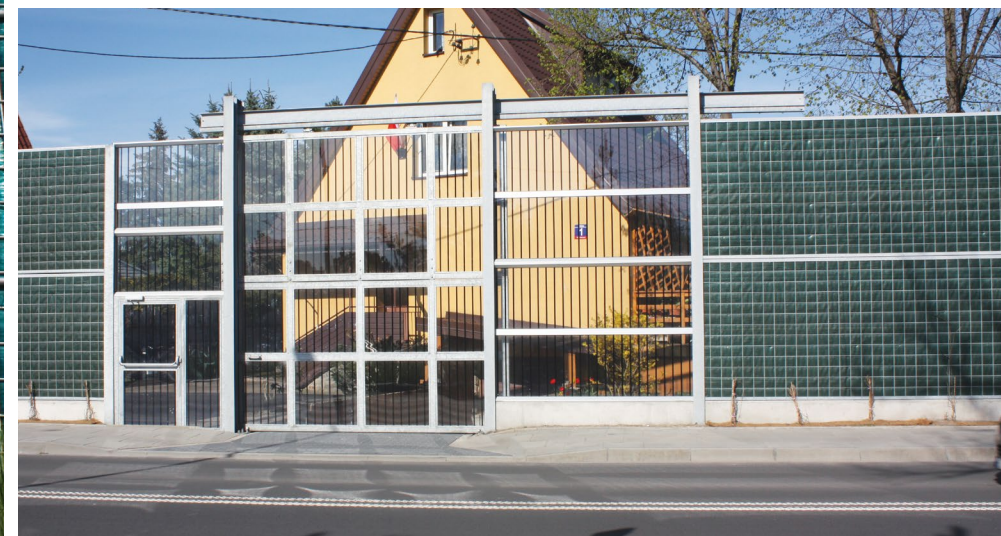
Our offer includes among others:

- Technical gates
- Emergency doors
- Access doors
- Access windows

All structures can be manufactured:

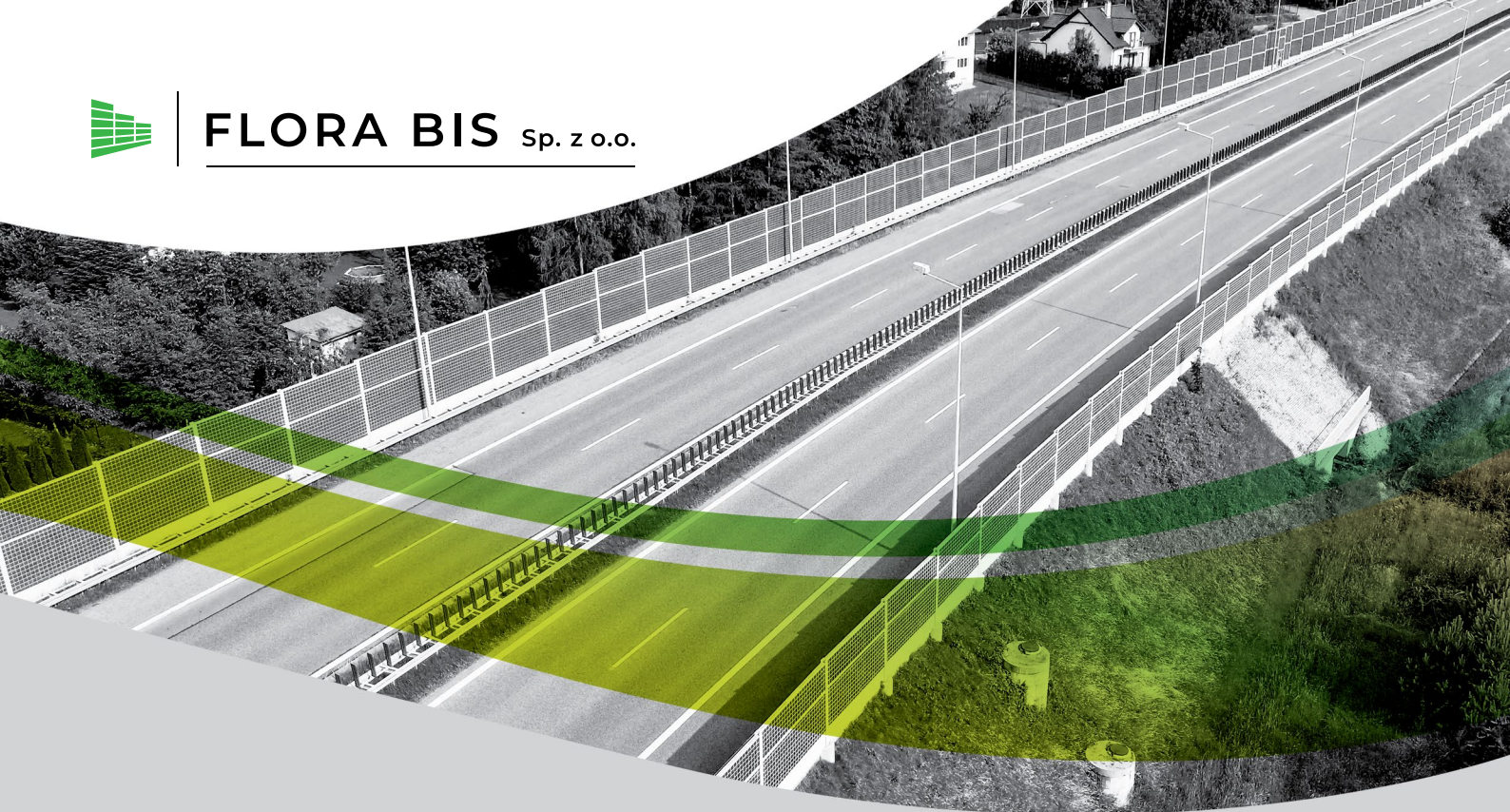
- Hot-dip galvanized
- Hot-dip galvanized and additionally powder coated in any RAL colour

This allows full visual integration of gates doors and access elements with the remaining components of the acoustic barrier system.





FLORA BIS Sp. z o.o.



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