SAINT-GOBAIN

ARCHITECTURE STUDENT CONTEST

Innovative Saint-Gobain products, system and solutions

Belgrade, Serbia

Last modified: 11th September 2025

WORLD GREEN BUILDING COUNCIL

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АКАДЕМСКИ ЈЕДРИЛИЧАРСКИ КЛУБ

SERBIA GREEN BUILDING COUNCIL

zelenoplavi KORIDORI

Introduction

Dear Students,

Welcome to a Sustainable Design Journey with Saint-Gobain!

This publication presents a selection of Saint-Gobain's innovative products, systems, and solutions available on the Serbian market—carefully chosen to support your creative and technical process in the 2026 edition of the Saint-Gobain Architecture Student Contest. While this book is **an optional resource**, it aims to inspire and inform your approach to sustainable architecture through practical examples of materials that combine performance, aesthetics, and environmental responsibility.

The contest task, set in the vibrant city of Belgrade, offers a unique opportunity to explore real-world design challenges through the lens of sustainable urban living. With a strong focus on thermal comfort, energy efficiency, acoustics, durability, and visual quality, the solutions featured here respond to key aspects of architectural sustainability—allowing you to create spaces that are not only functional and beautiful, but also responsible toward people and the planet.

Keep in mind that proper application and mention of Saint-Gobain products and systems will be one of the evaluated criteria during the National Stage of the competition. More importantly, sustainability is not just about meeting standards—it's about using locally available, efficient solutions to reduce the environmental impact of buildings. Every product and system included in this book has been developed with that mission in mind, making them valuable tools for your project and learning process.

By participating in this contest, you are not only designing for today, but for the future. Take this opportunity to expand your understanding of sustainable construction and discover how innovative materials can help shape a more resilient and inspiring built environment. Together, we are **Making the World a Better Home**.

MAKING THE WORLD A BETTER HOME

SAINT-GOBAIN

Table of Contents

Green roof solutions

Isover Green Roof Solutions offer an innovative approach to modern roofing by integrating thermal insulation with living vegetation layers. These systems go **beyond aesthetics**—while their visual appeal enhances the architectural character of a building, their real strength lies in their contribution to **sustainability, energy efficiency, and indoor thermal comfort**. Acting as a **passive design measure**, green roofs significantly reduce heat gain in summer and heat loss in winter, helping to lower energy consumption throughout the year.

Ideal for both residential and commercial buildings, Isover Green Roof Solutions support **biodiversity**, improve **rainwater management**, and extend the **lifespan of the roof structure**. For architects, they provide a multifunctional layer that combines technical performance with environmental responsibility and striking **design potential**. This chapter explores the key components, benefits, and applications of green roof systems, with a focus on how they align with energy-conscious and future-ready architecture.

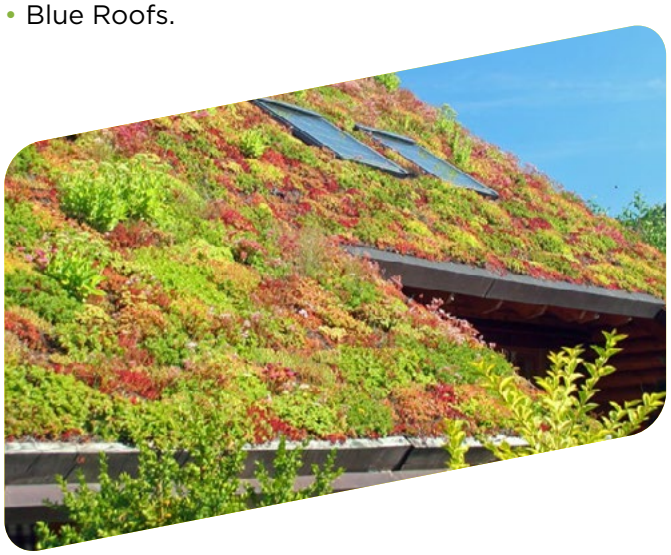
BLUE-GREEN INFRASTRUCTURE

Isover thinks about the environment

Blue-green infrastructure is a network of water and green features built in harmony with nature in developed areas. These elements are used in architecture and urban planning to address climate issues, retain water in cities and improve the climate. Their impact on the quality of the environment, the city and people's health is highly significant. Blue-green infrastructure includes water features for rainwater capture, management and treatment. Together with green elements, i.e. flora, it increases the diversity of animal and plant species, soil quality and groundwater status, reduces air pollution, improves the microclimate, reduces overheating and mitigates the risk of floods and extreme drought.

Elements of blue-green infrastructure:

- Water areas – ponds, lakes, reservoirs, wetlands.
- Watercourses – rivers, streams, water canals.
- Retention basins, soakage areas.
- Green spaces – parks, trees, alleys, grass strips.
- Green roofs - extensive, intensive, biodiverse, etc.
- Blue Roofs.



GREENERY IN ARCHITECTURE

Bosco Verticale (Vertical Gardens) is a residential project of two high-rise buildings in Milan, Italy. These are towers 110 and 80 metres tall that are meant to attract attention, but also to solve the problem of the lack of green spaces in cities.

The basic idea of the project is to replace the developed area with a much larger area of vegetation. Featuring 700 trees, 5,000 shrubs and over 10,000 smaller plants, it is the largest green wall project in the world. The buildings cool the surrounding environment, trap smog and create a suitable environment for many animals. This project has been acclaimed around the world and has inspired many other projects, such as the Wonderwoods in the Netherlands and the green skyscrapers in Nanjing, China.

GREEN AND BLUE ISOVER ROOFS

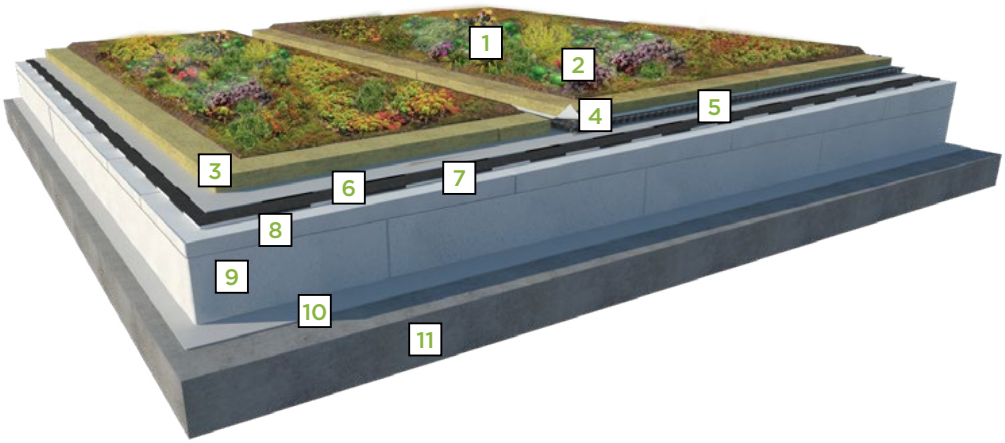
Basic division

ISOVER ENERGY-EFFICIENT ROOF EXTENSIVE GREEN ROOF

1. Extensive vegetation – sedums, sempervivums, succulents
2. Extensive mineral substrate, 30 mm thick
3. Isover Flora hydrophilic panels, thickness 50 mm
4. Filter fabric, 120 g/m^2 (only used with dimpled membrane)
5. Drainage dimpled membrane (use depends on drainage capacity calculation)
6. Protective geotextiles, 300 g/m^2
7. Waterproofing resistant to root penetration
8. Isover EPS 150 thermal insulation gradient wedges
9. Isover EPS 100 thermal insulation
10. Vapour barrier
11. Supporting roof structure

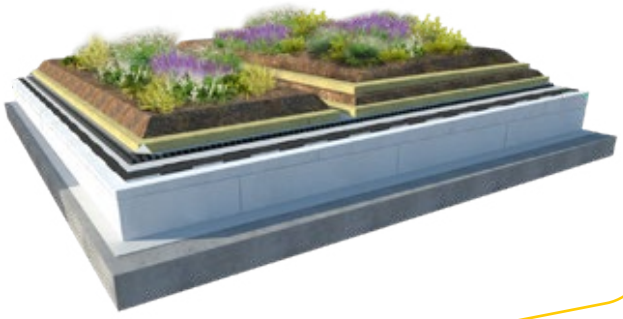
+ Rainwater retention
+ Most affordable
+ Easy implementation
+ Low maintenance
+ Low weight
- Limited choice of vegetation
- Can't be walked on at all times

The most common type of green roofs are compositions with low xerophytic vegetation. They are low maintenance and also the most affordable. Recommended plants include sedums, sempervivums and other plants that can tolerate extreme roof conditions. The appearance and colour of sedums changes throughout the year. This type of green roof retains more water than a roof without plants. It is also lightweight and suitable for the reconstruction of houses, pergolas, etc.



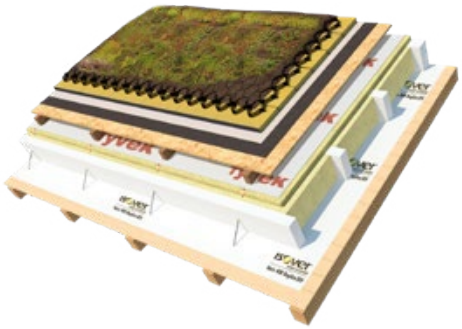
ISOVER ROOF MEADOW
SEMI-INTENSIVE GREEN ROOF

+ More diverse plant mix (grasses, herbs)
+ Can be regularly walked on
+ Can be combined with utility function (growing vegetables, herbs)
- More demanding maintenance
- Greater weight of vegetation layer



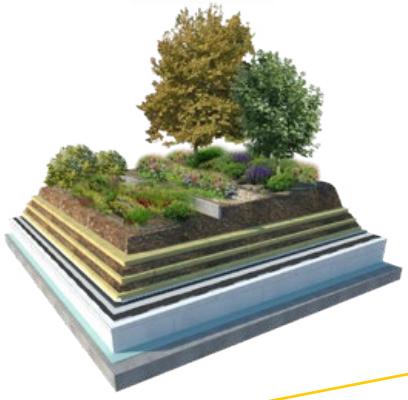
ISOVER PITCHED ROOF
EXTENSIVE GREEN PITCHED ROOF

+ Low maintenance
+ Low weight
+ For pitches up to 80°
- Anti-slide stabilisation required
- Drainage retarders required



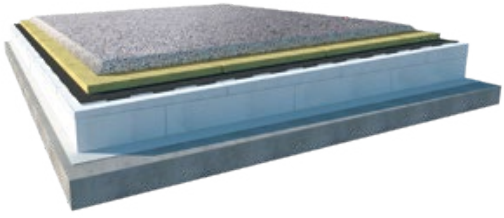
ISOVER ROOF GARDEN
INTENSIVE GREEN ROOF

+ High plant diversity (lawn, shrubs, trees)
+ Significant aesthetic and architectural value
+ Space for relaxation and gathering
- Very demanding maintenance
- High demands on the load-bearing elements of the structure
- The most financially demanding



ISOVER BLUE ROOF
BLUE ROOF

+ Ability to retain rainwater
+ Affordable solution
+ Almost maintenance-free solution
- No aesthetic and ecological function
- Without some of the benefits of green roofs



GREEN AND BLUE ISOVER ROOFS

Specific solutions

PHOTOVOLTAIC PANELS ON A GREEN ROOF

+ Green roof reduces ambient temperature and dust
+ Photovoltaic panels have a significantly higher efficiency at lower temperatures
+ Different habitats have a positive impact on biodiversity
- Implementation costs
- Higher requirements for the load-bearing capacity of thermal insulation

BIODIVERSE GREEN ROOF

+ Close connection with nature
+ Diverse environment suitable for many plants and animals
+ Low maintenance
+ Low implementation costs
- Locally higher loads on the structure
- Can be walked on only partially

ISOVER ROOF POND

+ Distinctive architectural element
+ Water retention
+ Biodiversity - plant and animal species diversity
- High demands on implementation
- Demanding maintenance

ISOVER HYDROPHILIC WOOL

Natural origin and connection with nature

The basic raw materials for the production of mineral wool are basalt and diabase, some of the most abundant rocks on Earth, which are formed by volcanic activity (past and present).

These rocks are melted in a furnace during the production process and the resulting lava is then pulped into a structure of fine fibres with diameters finer than a human hair. Nature offers an analogy to this production process, which is a precursor to soil formation.

At the sites of active volcanoes, one can encounter natural filamentous lava, e.g. in Hawaii, Pele's hair, where tufts of strands of igneous rock can reach up to two metres in length. However, the fibres formed in this way are without a binder, so the tufts do not hold their shape.

Thanks to the industrial addition of a binder, the fibres become a solid board that can be used in vegetation layers for green applications.

Advantages of mineral wool over substrate:

+ Higher hydroaccumulation capacity
+ Lower weight in dry state
+ Lower weight in wet state
+ Better thermal insulation properties

ISOVER HYDROPHILIC WOOL

Natural origin and connection with nature

ISOVER INTENSE

REINFORCED HYDROACCUMULATION PANELS

Reinforced hydroaccumulation panels used in applications with a greater vegetation layer thickness. Especially for intensive green roofs, where it is advantageous to layer these panels with mineral roofing substrates. They are also applied to places with higher traffic. Thanks to their greater hydroaccumulation, they are more suitable for pitched green roofs. It is delivered in bundles, bundles on pallets, but also the panels themselves on pallets.

Thickness (mm)	Dimensions (mm)	Packaging (m^2)	Pallet (m^2)	Pallet (m^3)
25	1200 × 1000	-	60	1,50 NEW
50	600 × 1 000	3,0	30,00	1,50
100	600 × 1 000	1,8	14,40	1.44

ISOVER FLORA

HYDROACCUMULATION PANELS

They are used for extensive and semi-intensive compositions of flat and pitched roofs as a partial substrate replacement. They are light and airy, which makes them easier to handle and transport than substrates. They are used in green roof compositions on new buildings, but are also suitable for renovations and hall buildings. They have a balanced ratio between hydroaccumulation and water permeability. This ensures that water drains away in the event of a large amount of water in the volume of the panels and prevents waterlogging of the composition. It is delivered in bundles, bundles on pallets, but also the panels themselves on pallets.

Thickness (mm)	Dimensions (mm)	Packaging (m^2)	Pallet (m^2)	Pallet (m^3)
30	600 × 1 000	6.0	48.0	1.44 NEW
50	600 × 1 000	4.8	28.8	1.44
50	1 000 × 1 200	-	28.8	1.44 NEW
100*	600 × 1 000	2.4	14.4	1.44
100*	1 000 × 1 200	-	14.4	1.44 NEW

* Non-standard product, delivery terms on request.

REASONS TO CHOOSE ISOVER GREEN ROOF SOLUTIONS

INCREASED AESTHETIC AND ARCHITECTURAL **VALUE**

View of greenery, higher property value, connection with nature

HEAT ISLAND **REDUCTION**

Significant reduction in surface temperatures and less heat accumulation

SOCIAL **INTERACTION**

Roof gardens as a space for meeting and relaxation

RAINWATER **MANAGEMENT**

Local water retention, subsequent evaporation

LOCAL ENVIRONMENT **IMPROVEMENT**

Diverse plant composition, smog trapping, photosynthesis

IMPROVING INDOOR **MICROCLIMATE**

Increases thermal comfort indoors, prevents overheating of buildings

REASONS TO CHOOSE ISOVER GREEN ROOF SOLUTIONS

IMPROVED **ACOUSTICS**

Reduces environmental noise and contributes to acoustic comfort

4 TIMES BETTER INSULATION **IN SUMMER AND WINTER**

"Cool in summer, warm in winter."

REDUCES OPERATING **EXPENCES**

Reduces air conditioning costs, increases the efficiency of photovoltaic panels, extends the life of the waterproofing

25% LIGHTER **WHEN WET**

Save on the supporting structure.

3 TIMES LIGHTER **IN DRY STATE**

You save on shipping and handling.

RETAINS 35% **MORE WATER**

It does not require frequent irrigation and leaves more water in the landscape.

REFERENCES

Production hall Brno
real. 2020 | photo 2023

Preschool Prague
real. 2019 | photo 2022

"Naše střecha", Jakub Cígler Architects, Prague
real. 2019 | photo 2022

Warehouse Lithuania
real. 2016 | photo 2018

Family house Prague
real. 2016 | photo 2020

The oldest green roof ISOVER Brno
real. 1995 | photo 2020

NEED TO KNOW MORE?

Have a question on the Architecture Student Contest 2026 Contest Task?
https://architecture-student-contest.saint-gobain.com/faq-2026

Technical documents
www.isover.cz/konstrukcni-detaily

Saint-Gobain CZ
https://www.saint-gobain.cz/

rigips
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Ventilated facade systems and solutions for wet areas

Rigips Glasroc X is a high-performance, glass-reinforced plasterboard designed to meet the demanding requirements of **both interior and exterior applications**. Its core strength lies in its **moisture, mold and UV resistance**, making it an ideal solution for wet and humid environments such as **showers, pools, changing rooms, and laundry facilities**. Thanks to its durable construction and water-repellent properties, it maintains structural integrity and surface quality even in challenging conditions.

Although commonly used in interior wet areas, Glasroc X was primarily developed for use in **ETICS, ventilated facade systems and external ceiling constructions**. Its robust weather resistance and ease of installation make it an essential component in modern **facade** design, offering architects a reliable substrate that meets both performance and aesthetic standards. This chapter explores the properties, benefits, and typical applications of Glasroc X, highlighting its role in creating durable and resilient building envelopes.

BOARD PROPERTIES

GYPSUM BOARD FOR EXTERIOR APPLICATIONS

Rigips Glasroc® X is a high performance building board with a gypsum core containing special additives for moisture and mold resistance. Rigips Glasroc® X is reinforced with a glass-mat on both surfaces and finished with a UV resistant coating, providing outstanding performance in harsh and humid environments. This non-paper faced board is free from cellulose content, therefore has a strong inherent resistance to mold growth which is perfect for wet areas and high-humidity environments including exterior applications. Glass-mat liners are embedded within the gypsum core ensuring a strong bond with gypsum that creates a monolithic board of high strength and exceptional integrity.

Rigips Glasroc® X is an ideal substrate for ETICS (External Thermal Insulation Systems) or Direct Render application (also known as Direct Apply Systems). This high performance board can be used for areas requiring high protection against water penetration and it has been designed for external and internal applications. This board is a perfect solution for exterior ceilings, external walls systems, façade cladding systems and internal wet area partitions.

Glasroc® X has been tested with ETAG verification procedures drawn up by EOTA (European Organisation for Technical Assessment) and harmonised UNE standards for facade and exterior cladding and sheathing applications, while covering the requirements of the EN 15283-1 standard for CE marking, as summarised in the relevant declaration of performance.

Specifications		Value	Unit
Board classification (EN 15283-1)		GM-H1	
Thickness		12,5	mm
Width		1200	mm
Standard length		2400, 3000	mm
Weight		10,9	kg/m^2
Total water absorption (EN 520)		≤ 5 (H1)	%
Surface water absorption (EN 520)		< 45	g/m^2
Mould resistant (ASTM D3273)		10 (No mould)	-
UV resistant		12	months
Dimensional stability	Thermal expansion (EN 14581)	0,8 x 10-5^{-5}	0C^{-1}
	Moisture expansion (EN 12467)	0,005	mm/m·1%RH (30-90 %RH)
Flexural strength	Longitudinal	≥ 540	N
	Transversal	≥ 210	N
Minimum bending radius		1,5	m
Thermal conductivity λ		0,1865	W/mK
Vapour dffusion μ		18,2	-
Fire reaction (EN 13501-1)		A1	-

EXTERIOR APPLICATIONS

EXTERNAL CEILINGS

Semi-exposed ceiling areas above balconies

BALCONIES

Wall linings for balconies and terraces

FACADE

Wall linings for ventilated or non-ventilated facades

EXTERIOR APPLICATIONS

EAVES
Linings for eaves and soffits

FASCIAS
Façade fronts

ARCHES
Linings to curved surfaces such as arches and columns with minimum bending radius 1,5m

REASONS TO CHOOSE RIGIPS GLASROC X

EASY TO **HANDLE**

Higher labor productivity
- Faster installation
- Transport optimization
- Jobsite optimization

LOW ENVIRONMENTAL **IMPACT**

Improving comfort
- Better acoustic insulation
- Better thermal insulation
- ... both with less thickness and weight

WATER AND MOULD **RESISTANCE**

Surface absorption <45g/m²;
Total absorption <5%

HYGROTHERMAL

Hygrothermal behavior
-20°C to +70°C

FLEXIBILITY

HIGH LABOUR **PRODUCTIVITY**

WEATHER BEHAVIOR / **EXTERIOR APLICATION**

Watertightness: 1400 Pa;
Airtightness: Class A4

FIRE **RESISTANCE**

Reaction to fire: A1

IMPACT **RESISTANCE**

ETAG 034 facades:
Category I

BETTER FOR **THE PLANET**

DIMENSIONAL **STABILITY**

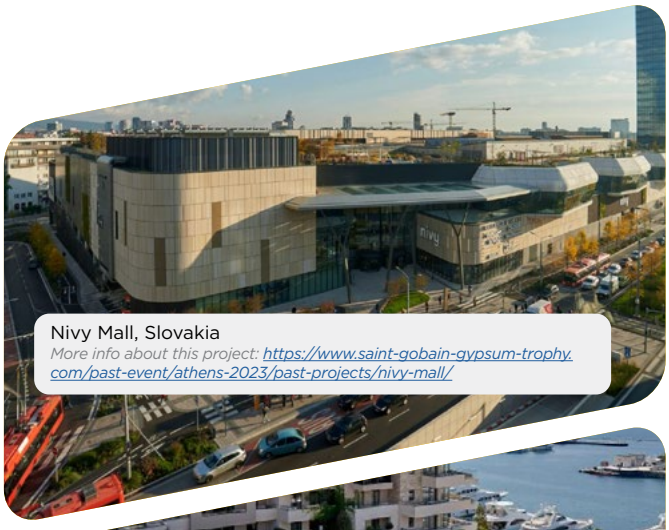
ENERGY **EFFICIENCY**

EASY TO **SCORE AND SNAP**

EASY TO **SCREW FIX**

REFERENCES

Acquamotion Gramado, Brazil
More info about this project: https://www.saint-gobain-gypsum-trophy.com/past-event/athens-2023/past-projects/acquamotion-gramado/

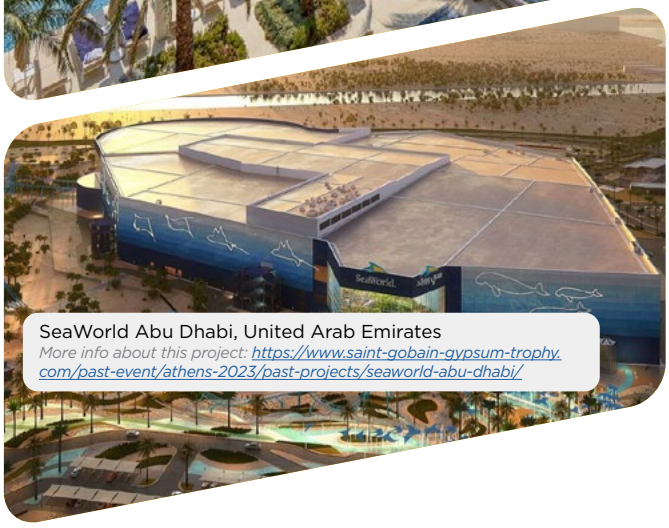


Nivy Mall, Slovakia
More info about this project: https://www.saint-gobain-gypsum-trophy.com/past-event/athens-2023/past-projects/nivy-mall/

Bangkok Boulevard Clubhoues, Thailand
More info about this project: https://www.saint-gobain-gypsum-trophy.com/past-event/athens-2023/past-projects/bangkok-boulevard-clubhouse/

Regent Pool Club Residences (BAIA), Montenegro
More info about this project: https://www.saint-gobain-gypsum-trophy.com/past-event/digital-edition-2021/past-projects/regent-pool-club-residences-baia/

Cardiff Interchange, United Kingdom
More info about this project: https://www.saint-gobain-gypsum-trophy.com/past-event/athens-2023/past-projects/cardiff-interchange/



SeaWorld Abu Dhabi, United Arab Emirates
More info about this project: https://www.saint-gobain-gypsum-trophy.com/past-event/athens-2023/past-projects/seaworld-abu-dhabi/

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Saint-Gobain CZ
https://www.saint-gobain.cz/

Technical documents
https://www.rigips.cz/produkty/glasroc-x/

weber
SAINT-GOBAIN

ETICS systems

EnveoTherm ETICS (External Thermal Insulation Composite System) is a **high-performance facade insulation system** designed to significantly improve the **thermal efficiency** of buildings. As one of the key **passive measures** for enhancing **indoor comfort**, it **reduces energy demand** for heating and cooling while supporting **long-term sustainability goals. ETA-certified** and built to meet strict European quality standards, EnveoTherm contributes to both energy efficiency and occupant well-being in residential, commercial, and public buildings.

Beyond its technical benefits, EnveoTherm also offers remarkable **design flexibility**. With a wide range of **color nuances** and **surface finishes**, architects can explore creative facade expressions without compromising on performance. Whether aiming for minimalism or bold visual identity, the system allows for tailored aesthetic outcomes alongside robust thermal protection. This chapter introduces the principles, advantages, and creative potential of the EnveoTherm ETICS system as an essential tool in modern architecture.

INNOVATION BACKED BY EXPERTISE

tested by the most demanding customers • international european certificate • TEST IS THE BEST

EnveoTherm builds on Saint-Gobain's decades of global experience and continuous innovation. Materials proven in countless projects, combined with advanced technologies, create a unique system designed to meet even the most demanding requirements.

EnveoTherm is a unique insulation system, composed of the highest quality formulas, which has stood up to the toughest tests. Its variability, durability and wide range of colours will immediately win your attention.

Enveo Therm

Recommended system components

		EnveoGrund	EnveoKleber Excellent	EnveoKleber Premium Light	EnveoKleber Premium	EnveoPutz Silicat	EnveoPutz Silicon	EnveoPutz Premium Silicon	EnveoPutz Premium Clean	EnveoPutz Premium Active	EnveoPutz Premium Aqua
24/0941	Enveo therm Excellent	●	●			●	●				
24/0976	Enveo therm Excellent MW	●	●			●	●				
24/0978	Enveo therm Premium	●	◖	●	●			●	●	●	●
24/0979	Enveo therm Premium MW	●	◖	●	●			●	●	●	●

ETA European Organisation for Technical Assessment

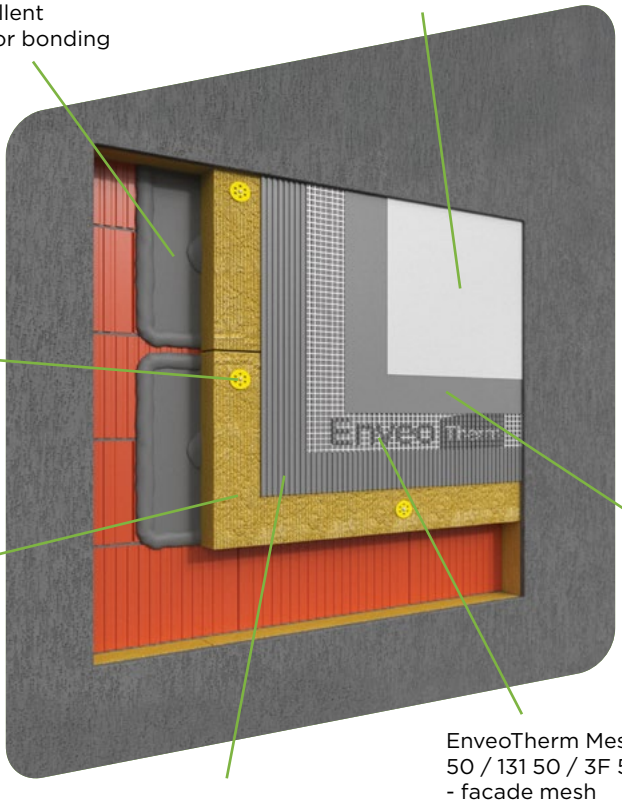
ENVEOTHERM PREMIUM

Designed for demanding projects. The Premium system combines advanced technologies such as 3D Force mesh with improved workability, ensuring superior functionality and ease of application. Its wider range of product components enhances versatility, while the extended warranty of up to 15 years gives further assurance of its long-lasting performance.

RECOMMENDED SYSTEM COMPONENTS

EnveoKleber Premium

EnveoKleber Premium light



Enveo Kleber Premium/ Premium Light/Enveo Kleber Excellent - adhesive for bonding

EnveoPutz Premium Silicon/Aqua/Clean/Active – Wet Renders

Anchors - all with ETAG 014 certification

MW Lamella/ MW Board TR 7,5 -TR 15 - insulation board

Enveo Grund - facade primer

EnveoTherm Mesh 117 50 / 131 50 / 3F 50 - facade mesh

Enveo Kleber Premium/ Premium Light/Enveo Kleber Excellent - adhesive for mesh reinforcement

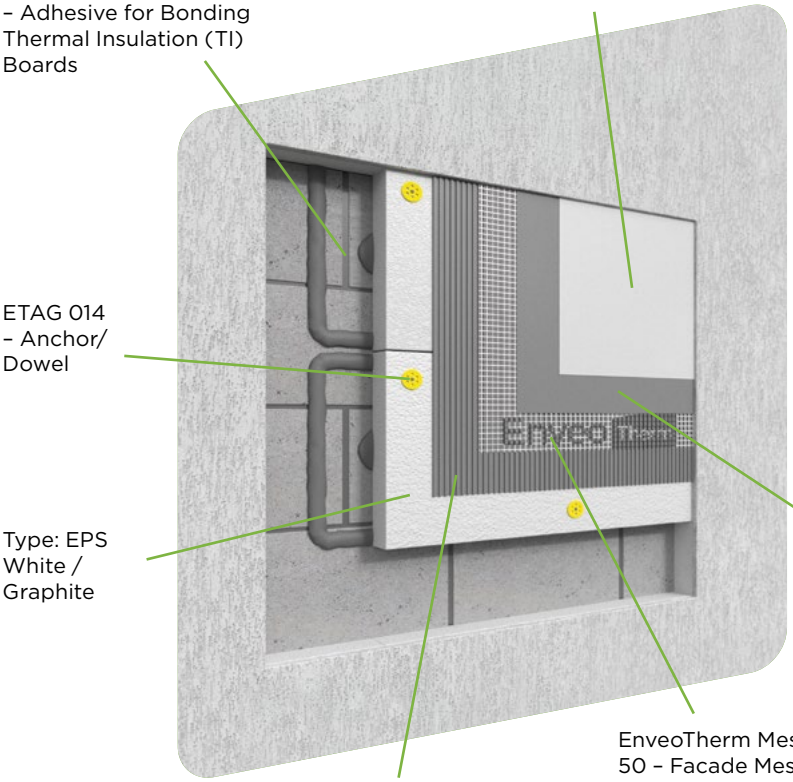
E TA
European Organisation for Technical Assessment

ENVEOTHERM EXCELLENT

Built for **long-lasting durability** and **low maintenance costs**, it provides an economical solution with a warranty of up to 10 years (depending on project needs). The system's **wide range of color options** offers great design flexibility, while its innovative materials ensure exceptional reliability for years to come.

RECOMMENDED SYSTEM COMPONENTS

EnveoKleber Excellent



EnveoKleber Excellent – Adhesive for Bonding Thermal Insulation (TI) Boards

EnveoPutz Silicate/Silicon/Premium Clean/Premium Aqua / Premium Active / Premium Silicon – Wet Renders

ETAG 014 – Anchor/ Dowel

Type: EPS White / Graphite

Enveo Grund – Facade Primer

EnveoTherm Mesh 131 50 – Facade Mesh

EnveoKleber Excellent – Adhesive for Reinforcing Mesh

REASONS TO CHOOSE WEBER ENVEOTHERM ETICS SYSTEM

DESIGN **FREEDOM**

Nearly 400 color shades and two plaster textures to match any architectural vision.

FOR BOTH **NEW BUILDINGS AND RENOVATIONS**

LONG-LASTING PERFORMANCE **WITH LOW MAINTENANCE**

TWO VARIANTS, **ONE STANDARD OF QUALITY**

Choose between Excellent and Premium. Each solution is designed to fulfill the unique demands of your project while upholding the highest standards.

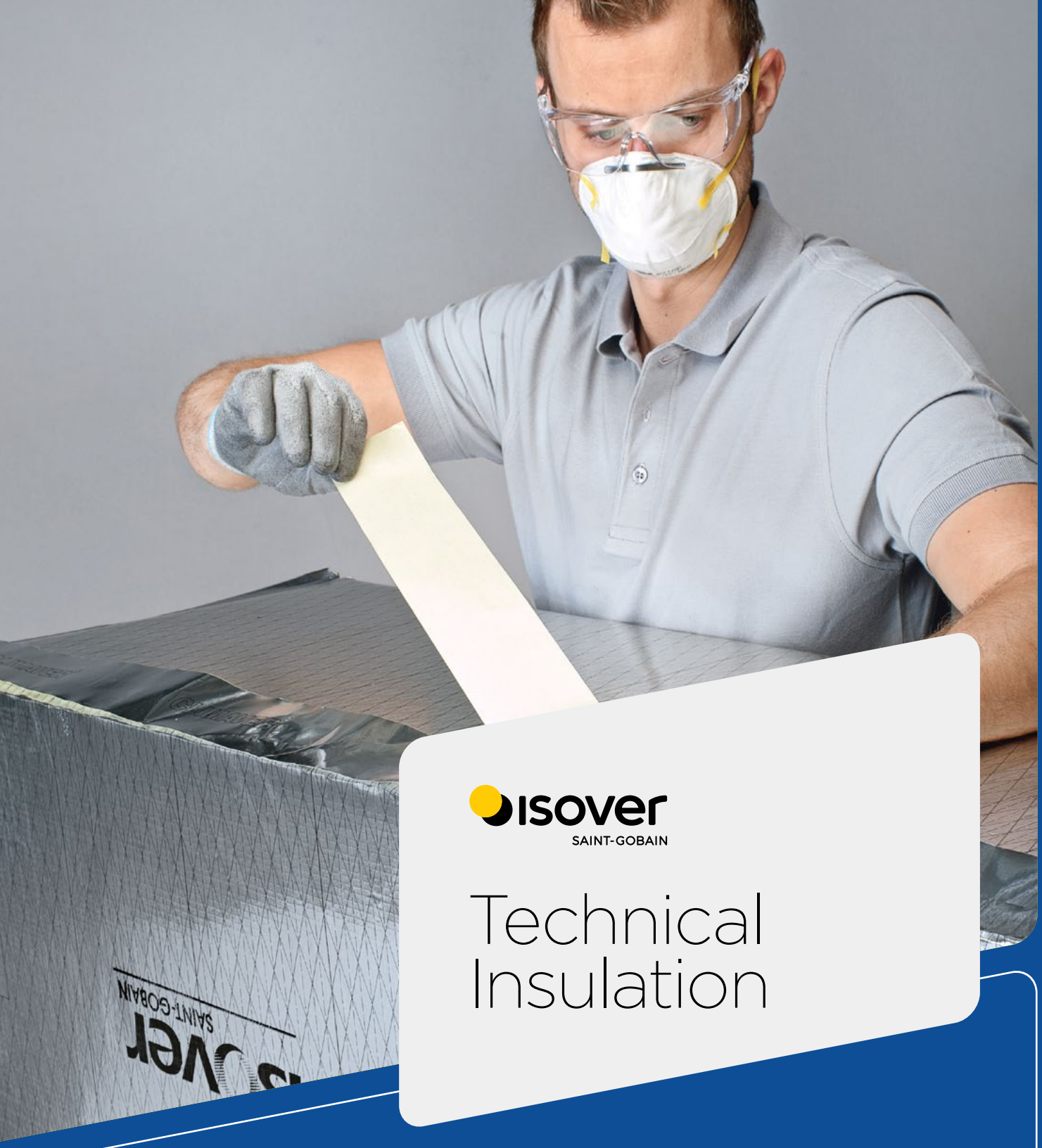
ETA CERTIFIED FOR **PERFORMANCE AND RELIABILITY**

NEED TO KNOW MORE?

Have a question on the Architecture Student Contest 2026 Contest Task?
https://architecture-student-contest.saint-gobain.com/faq-2026

Technical documents
https://www.saint-gobain.rs/enveotherm

Saint-Gobain SRB
https://www.saint-gobain.rs/



isover
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Technical Insulation

Climaver stands at the forefront of Isover's Technical Insulation portfolio as a groundbreaking solution for modern **HVAC systems**. As an **active measure** for ensuring **thermal comfort** and improving **indoor air quality**, Climaver combines **thermal insulation, air distribution, and acoustic performance** in a single, integrated duct system. It supports the creation of healthier indoor environments while significantly reducing energy losses—making it a smart choice for **sustainable** and energy-conscious building design.

Lightweight, easy to install, and highly efficient, Climaver replaces traditional sheet metal ducts with a more sustainable alternative that meets the highest standards of comfort and performance. Whether in commercial, public, or residential buildings, this innovative system helps architects and engineers design HVAC networks that are not only effective but also aligned with broader goals of energy efficiency and environmental responsibility. This chapter highlights Climaver's role in future-ready HVAC design and its contribution to the overall comfort and functionality of interior spaces.

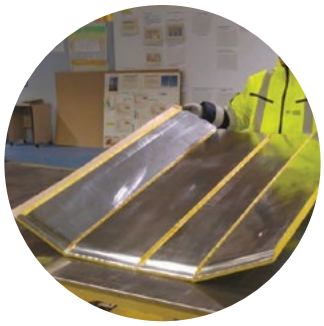
OPTIMIZING VENTILATION & AIR-CONDITIONING SYSTEMS

Do you want to optimize your project by using the most efficient solutions for their ventilation and air conditioning systems?

- Increase the energy efficiency of buildings by offering best in class duct systems
- Reduce installation, operating and maintenance costs
- Provide the right amount of fresh air and ensure thermal and acoustic comfort for the occupants

CHOOSE CLIMAVER®, YOUR ALL-INCLUSIVE DUCT SYSTEM

Made from dense and rigid glass wool boards, CLIMAVER® self-supporting air ducts are a cost-effective, easy-to-install alternative to traditional insulated metal ducts:



An all-in-one metal-free system, delivered flat on a pallet, and assembled in a single operation.

Duct sections are assembled easily, without the need for expensive machinery usually used on-site.

A shiplap on the edges ensures tight closure of the duct.

A unique product to replace metal ducts, providing state-of-the-art insulation and comfort.

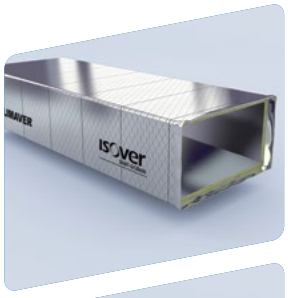
Read more to find out how CLIMAVER® ductwork can make your buildings more cost-efficient, greener and safer...

A COMPREHENSIVE RANGE TO MEET ALL YOUR NEEDS

Whether you are looking for maximum energy efficiency, enhanced noise reduction or extra fire protection, you'll find a pre-insulated duct solution tailored to your project.

Product	Specifically designed for	Acoustic absorption	Thermal savings	Air-tightness	Thickness
CLIMAVER® PLUS R		*	**	***	25mm
CLIMAVER® NETO	Acoustics	**	**	***	25mm
CLIMAVER® A2 PLUS		*	**	***	25mm
CLIMAVER® A2 NETO	Acoustics	**	**	***	25mm
CLIMAVER® A2 DECO	Aesthetics + acoustics	**	**	***	25mm
CLIMAVER® APTA	Top class acoustics + energy savings	***	***	***	40/(50) mm
CLIMAVER® A2 APTA	Top class acoustics + energy savings	***	***	***	40mm
CLIMAVER® A1 APTA	Top class acoustics + energy savings	***	***	***	40mm
CLIMAVER® STAR	Outdoor use + acoustics	***	***	***	40mm

* good **better ***best



CLIMAVER® PLUS R
CLIMAVER® A2 PLUS

CLIMAVER® NETO
CLIMAVER® A2 NETO
CLIMAVER® APTA
CLIMAVER® A2 APTA
CLIMAVER® A1 APTA

CLIMAVER® A2 DECO

CLIMAVER® and BIM:

We provide BIM objects of different CLIMAVER® configurations, to facilitate the work of designers and specifiers on projects involving Building Information Modelling. The BIM objects are available for download in the "Documentation" section of our website.

REASONS TO CHOOSE CLIMAVER®

REDUCE YOUR **ENERGY BILL**

To make your duct system as energy efficient as possible, you must take into consideration the thermal performance of your insulation material, potential thermal bridges and the airtightness of the duct system.

The all-inclusive CLIMAVER® solution

Highest classification of airtightness (exceeding the most stringent airtightness classification)

+

Excellent thermal resistance

+

Reduced thermal bridges

Reducing leakage means:

- Less heat loss.
- Less power for air handling unit (AHU) or ventilation machine needed to compensate for the effect of the leaks.
- Lower total airflow rates to and from unconditioned spaces.
- Optimized energy efficiency measures, including demand-control and heat recovery.
- The air needed to maintain the indoor environment at the desired temperature flows exactly where it is needed.
- The whole system can be precisely dimensioned.

Energy used for heating & cooling is reduced by ~15%.

GET **GREENER**

CLIMAVER® provides various benefits to the environment across its entire lifecycle, lessening the impact from sourcing to manufacture, from distribution to end-of-life:

- CLIMAVER® helps save materials & resources
- CLIMAVER® drives energy efficiency
- CLIMAVER® limits waste generation
- CLIMAVER® reduces transport emissions

For a typical office building, the use of 1000m2 of CLIMAVER® instead of insulated metal duct would save the equivalent of:

More than 36 years of driving 20km a day to work*
180,000 km travelled by car or 30 tons of CO2 emissions

The electricity usage of 4,000 inhabitants for 24h**
215,000 MJ of electricity consumed over 25 years

More than 3 tons of steel to install, insulate and dismantle

At ISOVER, we assess the environmental impacts of our products over their entire lifecycle (LCA – Life Cycle Assessment). We also offer transparent information on their environmental performance to our customers by providing third-party verified Environmental Product Declarations. EPDs for CLIMAVER® are available on our website.

CLIMAVER® contributes significantly to many aspects of LEED and other sustainability labels.

REASONS TO CHOOSE CLIMAVER®

ENGAGE FOR SAFER **AND HEALTHIER MATERIALS**

The health and safety of our customers is a top priority for us, not only for the building's occupants, but also during installation.

• Providing fresh, clean air

The indoor climate of the buildings is important for the wellbeing of its occupants. The best way to improve indoor air quality is to reduce pollution at source while improving ventilation and purifying the air. With CLIMAVER®, you can effortlessly carry fresh air inside **without having to worry about mould or bacteria** (EN 13403 for non-metallic ducts). CLIMAVER® also fulfills low emission requirements for buildings (according to EN ISO 16000-10:2006).

• Working with a safe material

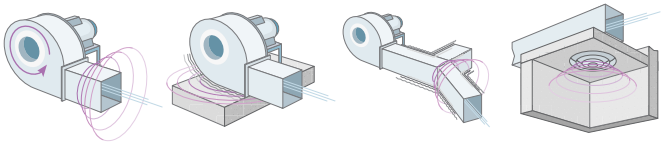
CLIMAVER® ensures safe and comfortable installation. All ISOVER glass wool fibres are bio-soluble and exonerated from any classifications on carcinogenic, mutagenic, or toxic for reproduction criteria. CLIMAVER® is certified according to EUCEB and therefore complies with all EU regulatory requirements. CLIMAVER® is easy to handle thanks to its ergonomic product dimensions and **weight 50% lower** than a metal duct + insulation solution. The aluminium foil with its unique guiding lines improves installation productivity.

More than 2500 scientific publications have demonstrated that mineral wool fibres are safe to manufacture, install and live with. This has been recognised by health authorities at an international level e.g. REACH regulation.

KEEP THE NOISE **DOWN**

Noise is recognised as an environmental pollutant that has a significant impact on our health and wellbeing. Ventilation and air-conditioning systems can be a source of noise and vibrations, either from the equipment itself or from the air flow circulating through the system.

Main sources of noise in a ventilation and/or air-conditioning system:



Ventilation/ air-conditioning system

Machinery vibrations

Air circulation

Grilles and diffusers

REASONS TO CHOOSE CLIMAVER®

ENSURE RELIABLE, **LONG -TERM PERFORMANCE**

As CLIMAVER® is made of glass wool, it could be perceived as fragile. However, CLIMAVER® is both robust and flexible, which means that it can withstand all kinds of mechanical stress.

- Withstanding high pressure

Be assured that your CLIMAVER® duct can withstand constant static pressure of up to 800 Pa and air-circulation up to 18m/s.

- A robust system

CLIMAVER® has been tested for the minimum required rigidity according to the EN 13403 method. It attains board stiffness Class R2 (Flexural rigidity Nmm2 ≥ 90,000). Contrary to metal ducts, CLIMAVER® is not at risk of dents or damage on building sites.

INCREASE YOUR **SITE PRODUCTIVITY**

Do you want to optimize your work, increase productivity and reduce installation times?

Choose CLIMAVER®, a single product that replaces the two traditional trades of metal ductwork and their insulation. Assembled in a single operation, it offers numerous installation benefits:

- Improves site productivity
- Greater flexibility
- Comfortable to install
- Optimizes logistics
- Limits waste generation
- Reduces noise disturbance on building sites.

With our exclusive leaning shiplap, you can further optimize the performance of your ductwork:

- Improve airtightness & reduce pressure loss
- Enhance aesthetics
- Obtain stronger, more precise jointing
- Choose your configuration, including complex shapes
- Connect to any HVAC standard equipment

isover SAINT-GOBAIN

REASONS TO CHOOSE CLIMAVER®

MINIMISE **MAINTENANCE**

We know that it is important for your ventilation to work efficiently over time. Our design teams have therefore worked hard to ensure all CLIMAVER® products are easy to clean without compromising their original properties.

The internal coatings of the CLIMAVER® range provide the mechanical resistance needed to clean air conditioning systems, even with nylon brushes, without causing damage or requiring post-cleaning treatments. This durability also reduces the frequency of cleaning access. This has been certified by AELSA, the Spanish association of duct cleaning companies.

CLIMAVER® ducts retain all their acoustic, thermal and fire protection properties over the whole lifetime of the system.

ENSURE **FIRE SAFETY**

The consequences of fire breaking out and spreading are of serious concern for property owners and occupants everywhere.

Product CLIMAVER®	Class	Reaction to fire	Flashover	Smoke and droplets
A1 APTA	A1	No contribution to a fire	No	None
A2 PLUS, A2 NETO, A2 DECO, A2 APTA	A2, s1-d0	No significant contribution to fire growth	No	Insignificant smoke release with no flaming droplets or particles expected
PLUS R, NETO, APTA, STAR	B, s1-d0	No significant contribution to fire growth	No	Insignificant smoke release with no flaming droplets or particles expected
-	C	Limited contribution to flashover	Flashover >10 min	Production of smoke & flaming droplets & particles
-	D	Contribution to flashover	Flashover 2<>10 min	Production of smoke & flaming droplets & particles
-	E	Significant contribution to flashover	Flashover <2 min	Production of smoke & flaming droplets & particles (smoke release is expected to be substantial)
-	F	Not tested or incapable of archieving Class E	NPD	NPD

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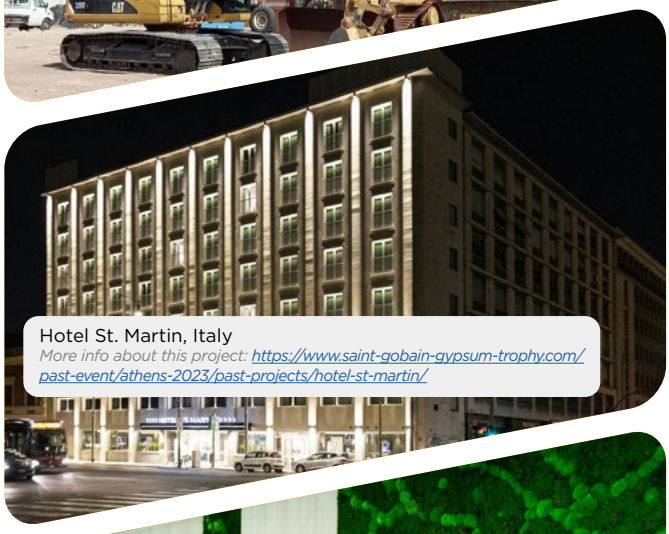

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National Grand Theater of China in Beijing, China
More info about this project: https://www.isover-technical-insulation.com/Reference-Projects/national-grand-theater-china-beijing

One Tower Offices SG Bucharest, Romania
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NEED TO KNOW MORE?

Have a question on the Architecture Student Contest 2026 Contest Task?
https://architecture-student-contest.saint-gobain.com/faq-2026

Saint-Gobain ES
https://www.saint-gobain.es/

Technical documents
https://www.isover-technical-insulation.com/

rigips
SAINT-GOBAIN

Impact-resistant and superior load-bearing drywall solutions

Rigips Habito is a next-generation plasterboard designed to combine **exceptional impact resistance with superior load-bearing capacity**. Its solid, reinforced core allows for the secure and **easy mounting of heavy items** directly onto the board without the need for special anchors or reinforcements. This makes it **the ideal choice for interiors where shelves, cabinets, gym equipment**, or other wall-mounted elements are frequently installed or repositioned.

Thanks to its durability and flexibility, Habito is particularly **well-suited for rooms that undergo frequent functional changes** or are subject to high physical demands—such as **kitchens, storage areas, pantries, gyms, fitness centers, dining halls, and cafeterias**. In these environments, Habito not only supports the practical needs of the space but also contributes to **long-term performance and reduced maintenance**. This chapter explores how Rigips Habito helps architects design interiors that are both robust and adaptable to change.

Rigips Habito

Rigips Habito board is a next generation plasterboard suited to all kinds of project requirements. It looks and handles like regular plasterboard, and has all of the speed and performance benefits expected from Rigips boards – but that's where the similarity ends. New patented technology and an exceptionally strong solid gypsum core has produced a board that not only has improved fixing strength but has a robust high strength, low maintenance surface that will take the knocks and bangs of everyday life - even in challenging environments. With Rigips Habito plasterboard you can fix and move shelves, cupboards, cabinets, medical equipment – so updating and restyling interior layouts as needs or fashions change is quick and easy.

FIXABILITY

You can now fix heavy items directly into the board without using any specialist fixings or support. Rigips Habito makes fixing cupboards, TVs, hospital screens, equipment and everyday objects like fire extinguishers, frames, curtain poles etc, very simple and secure.

REASONS TO CHOOSE RIGIPS HABITO

EASY **INSTALLATION**

DRYWALL SYSTEM BENEFITS

Rigips Habito boards can be handled just like standard boards. Despite their special gypsum core, they are easy to cut using a plasterboard saw or by double scoring with a sharp knife and snapping the board over a straight edge. To fix Habito boards directly into metal section, use Habito screws, specially designed for these board.

BETTER **ACOUSTICS**

DUE TO ITS IMPROVED CORE DENSITY

Habito's dense gypsum core and robust construction means it's great at cutting down unwanted sound from noisy activities or equipment in adjacent rooms or corridors – creating a relaxing environment for guests; helping patients to recover more quickly or simply making homes more comfortable.

GREENER **BUILDING**

CONTRIBUTING TOWARDS ACCREDITATION

Habito® has a number of EPD's (Environmental Product Declaration) available from various plants and these reports will continue to be created in order to meeting the demands of green building accreditation. Saint-Gobain completes these reports from "Cradle to Grave", which is more comprehensive than "Cradle to Gate".

IMPROVED **SAFETY**

BECAUSE OF BETTER FIRE RESISTANCE

The additional fire protection properties above standard board products enable the plasterboard to be used in partition, ceiling and steel encasement systems.

REASONS TO CHOOSE RIGIPS HABITO

INCREDIBLY **STRONG**

DUE TO IMPROVED IMPACT RESISTANCE

Habito's patented technology and high strength solid core means it's very strong and much more resistant to damage from knocks and scrapes. Everyday impacts from children playing, wheelchairs and trolleys, guests suitcases and even general wear and tear – can take it all in its stride. Rigips Habito boards require less maintenance and repair, saving time and money and keeping prestige interiors looking good for longer, creating healthier and more comfortable interiors, for its building occupants.

Habito has an outstanding impact-resistant properties, making it ideal to use a number of high traffic environments. Boards are tested for impact resistance in every production plant to ensure product quality remains the same globally, using severe duty classification based on BS 5234 and EN520 manufacturing standard.

ROBUSTNESS

DUE TO IMPROVED IMPACT RESISTANCE

The relevant standard for the testing and specification of partitions is BS 5234.

This standard covers the design, installation and performance of partitions, and allows the building designer to define the durability required. Duty ratings are a method of determining the robustness (or durability) of a non-loadbearing partition system and its suitability within a building. Racking resistance complies with EN 520 & EN 1380.

BENDING **RADIUS**

DUE TO DESIGN FLEXIBILITY

The achievable bend radius for Habito is 6 m, which is in line with other robust boards.

REASONS TO CHOOSE RIGIPS HABITO

ATTACK **RESISTANCE**

DUE TO IMPROVED IMPACT RESISTANCE

Habito can achieve Class 2 (RC2) Burglar Resistance.

The conformity has been established based on the assessment of the tests performed according to the basis in comparison with the NEN 5096: 2012.

It should be noted that the conformity assessment is a one-off assessment of the product described. Only when this conformity assessment is included in a SKG-IKOB KOMO certificate is the validity and compliance with laws and regulations monitored for standard and / or product changes.

Habito® systems are tough enough to have been approved by Secured By Design, a UK body which makes it a preferred system for party walls by Metropolitan police.

Habito® has achieved similar certifications in other regions. This now allows Habito® to be used throughout a construction and is more time and cost effective than alternative solutions for dividing wall construction. For areas of high security.

USE IN **WET AREAS**

BECAUSE OF MOISTURE RESISTANCE

Enhanced plasterboard with water repellent additives in the core.

Recommended for use in intermittent moisture applications where additional performance is required such as in kitchen and bathroom walls and ceiling installations. It is also suitable for use in external soffits that are in sheltered positions.

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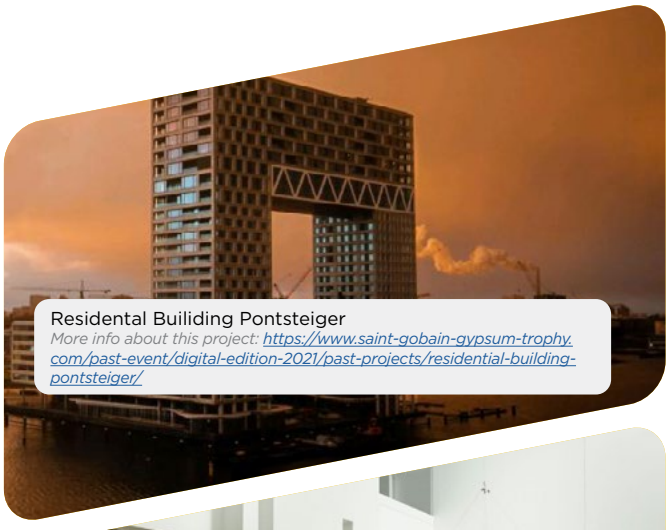

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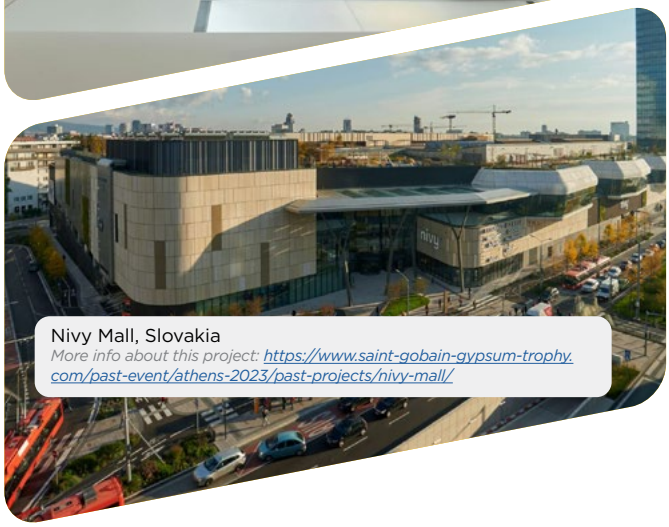

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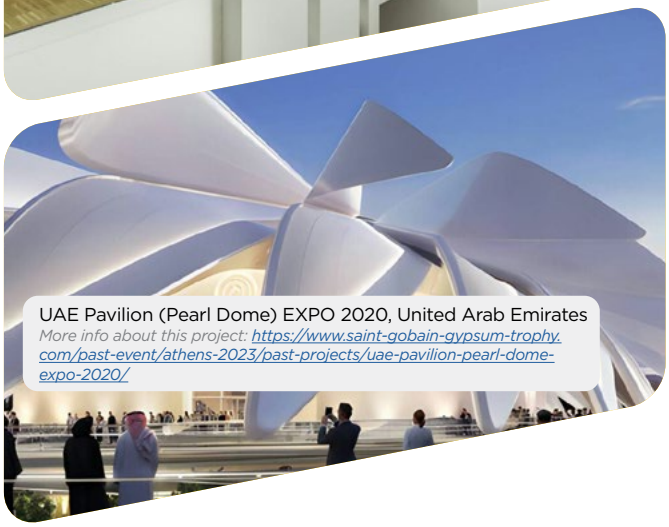
More info about this project: https://www.saint-gobain-gypsum-trophy.com/past-event/athens-2023/past-projects/nivy-mall/



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NEED TO KNOW MORE?

Have a question on the Architecture Student Contest 2026 Contest Task?
https://architecture-student-contest.saint-gobain.com/faq-2026

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Saint-Gobain HU
https://www.saint-gobain.hu/

rigips
SAINT-GOBAIN

Sound protection drywall systems

Rigips Duraline Blue is a specially engineered plasterboard that delivers outstanding **sound insulation and acoustic comfort**, making it an ideal solution **for spaces where peace and privacy are essential, keeping the low structural thickness**. With its high-density core, it effectively **reduces airborne noise**, creating a more comfortable environment in **sleeping areas, study rooms, medical spaces**, and other settings where focus and rest are key.

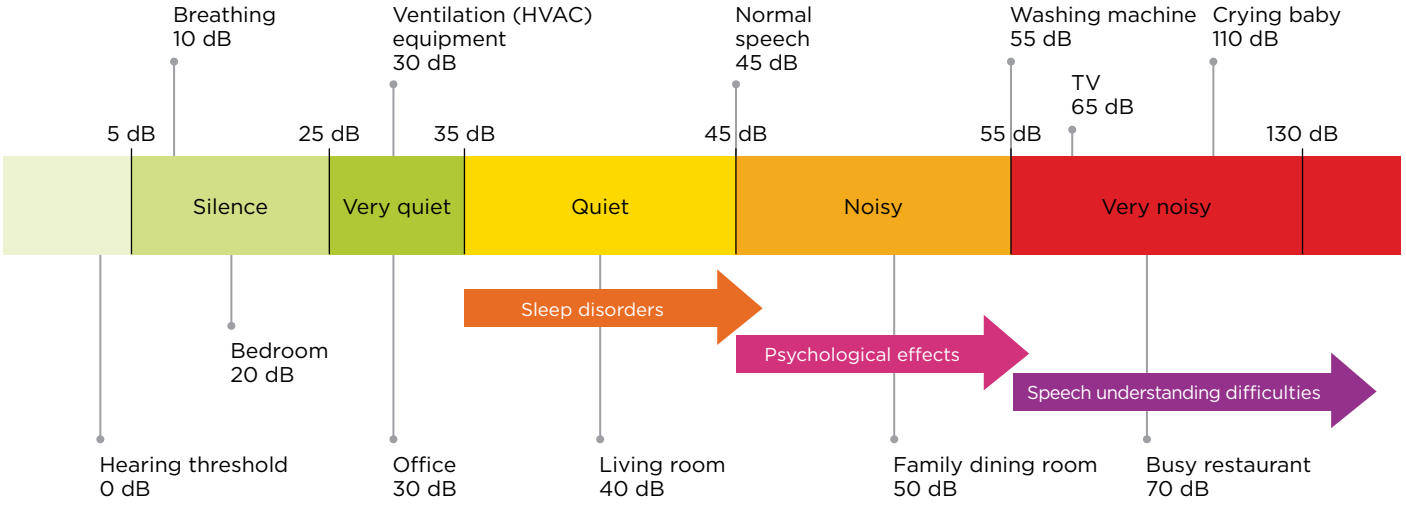
In addition to its acoustic performance, Duraline Blue is designed for **enhanced impact resistance**, allowing it to withstand the wear and tear of high-traffic areas. This makes it a reliable choice not only for quiet interiors but also for **corridors, schools, hospitals**, and other public or semi-public spaces **where durability is just as important as sound control**. This chapter introduces the unique features of Duraline Blue and its wide range of architectural applications aimed at improving both comfort and resilience in modern buildings.

ACOUSTIC COMFORT

Acoustic comfort means low levels of noise. Higher levels of noise are harmful to our bodies. The human pain threshold is 140 decibels, higher noise levels can cause hearing impairment.

It is not just one-off exposures to high levels that can cause injury, but long-term exposure to a noisy environment as well.

SOUND VOLUMES OF HUMAN ACTIVITIES AND LOUDNESS ZONES



Low noise levels within a room can be ensured by selecting the right soundproofing structures to prevent the propagation of unwanted ambient noise:

1. Silence zone: noise exposure up to 20 dB
2. Quiet zone: noise exposure up to 35 dB
3. Adequate zone: noise exposure up to 45 dB

Rigips® soundproofing plasterboard structures offer solutions for building a living and working environment with appropriate acoustic comfort.

DURALINE BLUE DB AND DBI PLASTERBOARDS

The Duraline Blue soundproofing plasterboard is a state-of-the-art development by Rigips. By using Duraline Blue plasterboards, partition wall structures can provide a higher sound insulation value while maintaining the same structural thicknesses.

The **Duraline Blue DB** board is an excellent solution for the constructions of delimiting structures in offices,
hotel rooms and apartments with increased comfort levels.

The **Duraline Blue DBI** plasterboard has been developed to provide a solution for structures with increased soundproofing and fireproofing requirements, **also in rooms with periodically high humidity.** For partition walls built with Duraline Blue DBI plasterboard, it is also possible to install larger tiles than previously allowed.

By using Duraline Blue plasterboards, the fire resistance limit of the structures is the same as those built with fire-retardant plasterboards.

DURALINE BLUE DB

DURALINE BLUE DB
SOUNDPROOFING AND FIRE-RETARDANT PLASTERBOARD

The Duraline Blue DB plasterboard is an excellent solution for building structures with low structural thickness that have high soundproofing and fire-retardant characteristics.

RECOMMENDED FIELDS OF APPLICATION:

- suspended ceilings, wall linings, partition walls in new apartments
- partition walls, suspended ceilings in renovated apartments
- partitions separating rooms, suspended ceilings, wall linings of hotel rooms
- increased sound-insulating and impact resistant structures of cultural institutions and commercial buildings

TECHNICAL CHARACTERISTICS

DURALINE BLUE	
Applicable standard:	MSZ EN 520
Allowed relative humidity:	up to 70%
Thickness:	12.5 mm
Weight:	12.2 kg/m^2
Thermal conductivity:	0.25 W/m.K
Maximum temperature:	+50 °C
Reaction to fire class:	(MSZ EN 13501-2) A2-s1,d0
Vapour resistance factor:	(μ) 10
Type according to EN 520:	DFRI

DURALINE BLUE IMPREGNATED DBI

DURALINE BLUE IMPREGNATED DBI
SOUNDPROOFING, FIRE-RETARDANT AND IMPREGNATED PLASTERBOARD

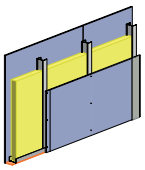
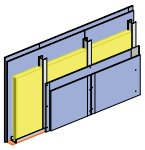
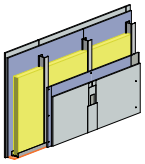
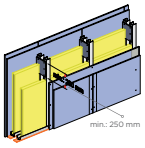
The Duraline Blue DBI plasterboard has been developed to provide a solution for structures with increased soundproofing and fireproofing requirements, also in rooms with periodically high humidity.

RECOMMENDED FIELDS OF APPLICATION:

- bathroom construction in apartments: suspended ceilings, wall linings, partitions
- bathroom renovation: wall linings, suspended ceilings
- hotel bathrooms: partition walls, suspended ceilings
- cultural institution and commercial building restrooms
- hospital restrooms and showers

DURALINE BLUE DBI	
Applicable standard:	MSZ EN 520
Allowed relative humidity:	up to 80%
Thickness:	12.5 mm
Weight:	12.2 kg/m^2
Thermal conductivity:	0.25 W/m.K
Maximum temperature:	+50 °C
Reaction to fire class:	(MSZ EN 13501-2) A2-s1,d0
Vapour resistance factor:	(μ) 10
Surface water absorption:	up to 180 g/m^2
Type according EN 520:	DFRIH2

DURALINE PARTITIONS
(SOUND INSULATION RESULTS ACCORDING TO THE STUDY)

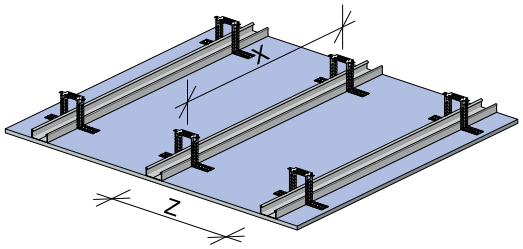
Weighted sound reduction index: Rw	Short marking: Profile size/ wall thickness	Partition details: board type and thickness	Wall height if CW studs spacing: 60 cm field of application		Wall height in case of fire resistance	Reaction to fire class and fire resistance (in ETA)	Insulation: thickness/type		System certificate according to ETA-17/0730	Sound insulation: Rw (Rw+C)*** acording to MODO EXPERT STUDY	NR. in the study
[dB]	[mm]	[mm]	I. m*	II. m*	[m]**	EI [min]	[mm]	type	CODE	[dB]	
46 - 56 dB	**PARTITIONS WITH ONE LAYER OF PLASTERBOARD ON A SIMPLE STUD. WALL WEIGHT APPROX. 26 KG/M².**										
	CW 50/75	2x Duraline Blue 12,5	3	2,75	3	A2 EI 30	50	Isover Akusto	A6	46 (41)	1.
	CW 75/100	2x Duraline Blue 12,5	4,5	3,75	3	A2 EI 30	50	Isover Akusto	A22	54 (49)	2.
	CW 100/125	2x Duraline Blue 12,5	5	4,25	3	A2 EI 30	100	Isover Akusto	A41	56 (52)	3.
59 - 68 dB	**PARTITIONS WITH TWO LAYERS OF BLUE ACOUSTIC PLASTERBOARD ON A SIMPLE STUD. WALL WEIGHT APPROX. 60 KG/M².**										
	CW 50/100	2x2 Duraline Blue 12,5	4	3,5	4	A2 EI 90	50	Isover Akusto	B6	59 (55)	4.
	CW 75/125	2x2 Duraline Blue 12,6	5,5	5	4	A2 EI 90	75	Isover Akusto	B26	64 (61)	5.
	CW 100/150	2x2 Duraline Blue 12,7	6,5	5,75	4	A2 EI 90	100	Isover Akusto	B47	68 (65)	6.
56 - 62 dB	**PARTITIONS WITH TWO LAYERS OF PLASTERBOARD (NORMAL + BLUE ACOUSTIC) ON A SIMPLE STUD. WALL WEIGHT APPROX. 60 KG/M².**										
	CW 50/100	2x (RB 12,5 + Duraline Blue 12,5)"	4	3,5			50	Isover Akusto		56 (52)	7.
	CW 75/125	2x (RB 12,5 + Duraline Blue 12,5)	5,5	5	3	A2 EI 60	75	Isover Akusto	B25	59 (56)	8.
	CW 100/150	2x (RB 12,5 + Duraline Blue 12,5)	6,5	5,75			100	Isover Akusto		62 (60)	9.
68 - 76 dB	**PARTITIONS WITH TWO LAYERS OF BLUE ACOUSTIC PLASTERBOARD ON A DOUBLE STUD. WALL WEIGHT APPROX. 60 KG/M². THE DOUBLE STUD FRAME IS FASTENED WITH PLASTERBOARD FIXING STRAPS.**										
	CW 50+50/-	2x2 Duraline Blue 12,5	4,5	4	3	A2 EI 90	2x50	Isover Akusto	E7	68 (65)	10.
	CW 75+75/-	2x2 Duraline Blue 12,5	6	5,5	3	A2 EI 90	2x75	Isover Akusto	E13	74 (71)	11.
	CW 100+100/-	2x2 Duraline Blue 12,5	6,5	6			2x100	Isover Akusto		76 (74)	12.

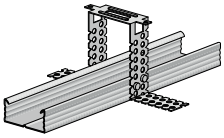
* Field of application I: Low occupancy spaces, e.g. apartments, offices, hospitals, including corridors.
Field of application II: Higher occupancy spaces, e.g. meeting rooms, school rooms, auditoriums, exhibition and conference venues. Also where the floor level difference between adjacent rooms is greater than 1 metre.

** The wall height allowed for the specified fire resistance is based on European Technical Assessment ETA -17/0730.

*** C - spectrum adjustment factor – to be applied for the following noises and noise sources: normal residential use of apartment (speech, listening to music, children playing, etc.); medium and high speed rail traffic; road traffic on motorways.

SUSPENDED CEILINGS WITH DURALINE BLUE BOARDS





The construction of suspended ceilings in bathrooms is becoming increasingly common. Our buildings are expected to meet higher standards than before.

The suspended ceiling space can be used to route cables, concealed lighting and has high quality acoustic performance to provide quiet environment.

RIGIPS® SUSPENDED CEILINGS ON SINGLE PROFILE

- can be installed with small suspension depth
- electrical wiring can be routed in the space above the suspended ceiling
- improves the sound insulation values of the ceiling
- suitable for installing concealed lighting
- can also be installed as decorative ceiling element

Partition details: board type and thickness	Profile type/size	Distance of CD studs: Z	Spacing of supporting stud frame: Y	Hanger type	Hanger spacing: X	Mineral wool used – Isover Akusto: thickness	Reaction to fire class and fire resistance	Sound reduction index: Rw	Feasible max. suspension depth
[mm]	[mm]	[mm]	[mm]		[mm]	[mm]	EI [min]	[dB]	[mm]
RIGIPS® SUSPENDED CEILING MOUNTED ON SIMPLE STUD FRAME WITH STEEL BEAM OR REINFORCED CONCRETE CEILING									
Duraline Blue 12.5[a]	CD 27/60	400	-	direct hanger	1000	50	A2 REI 30	5 - 10 dB reduction value	**50-230**
RIGIPS® SUSPENDED CEILING MOUNTED ON SIMPLE STUD FRAME WITH WOOD, STEEL BEAM OR REINFORCED CONCRETE CEILING									
Duraline Blue12.5	CD 27/60	400	-	direct hanger	1000	2x50	A2 REI 30	5 - 10 dB reduction value	**50-230**

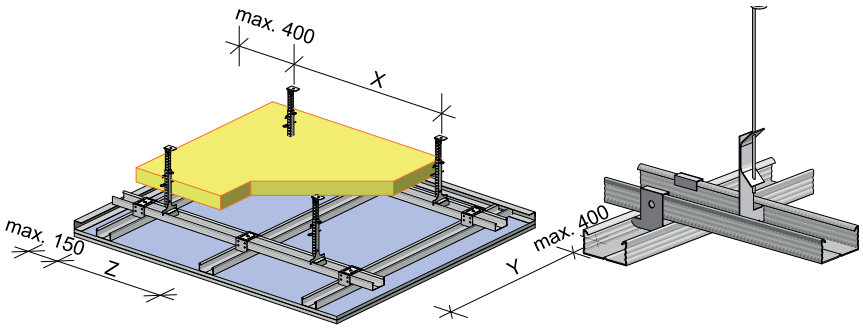
dB

TEST RESULTS

a **59** ✓ Suspended ceiling on simple CD stud using direct hangers with **1 layer Duraline Blue 12.5** board and 50 mm Isover Akusto insulation, under 12 cm thick reinforced concrete ceiling has **Rw (Rw + C) = 59(57) dB** sound reduction value.

b **60** ✓ Suspended ceiling on double CD stud using vernier hangers with **2 layer Duraline Blue 12.5** board and 50 mm Isover Akusto insulation, under 12 cm thick reinforced concrete ceiling has **Rw (Rw + C) = 60(59) dB** sound reduction value.

SUSPENDED CEILINGS WITH DURALINE BLUE BOARDS



RIGIPS® SUSPENDED CEILINGS ON DOUBLE PROFILE

- can be installed with high suspension depth
- the space above the suspended ceiling can be used for larger diameter cables, HVAC and mechanical equipment
- improves the sound insulation values of the ceiling
- suitable for installing concealed lighting
- can also be installed as decorative ceiling element

Partition details: board type and thickness	Profile type/size	Distance of CD studs: Z	Spacing of supporting stud frame: Y	Hanger type	Hanger spacing: X	Mineral wool used – Isover Akusto: thickness	Reaction to fire class and fire resistance	Sound reduction index: Rw	Feasible max. suspension depth
[mm]	[mm]	[mm]	[mm]		[mm]	[mm]	EI [min]	[dB]	[mm]
RIGIPS® SUSPENDED CEILING MOUNTED ON DOUBLE STUD FRAME WITH STEEL BEAM OR REINFORCED CONCRETE CEILING									
Duraline Blue 12.5	CD 27/60	400	1000	vernier	850	50	A2 REI 30	12 - 15 dB reduction value	**150-3000**
2 x Duraline Blue 12.5[b]	CD 27/60	400	1000	vernier	750	50	A2 REI 60	12 - 15 dB reduction value	**150-3000**

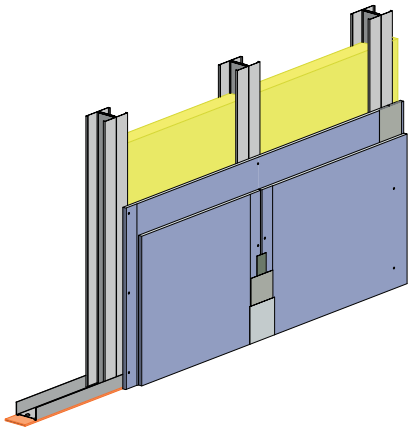
TEST RESULTS

- a **59** dB — Suspended ceiling on simple CD stud using direct hangers with **1 layer Duraline Blue 12.5** board and 50 mm Isover Akusto insulation, under 12 cm thick reinforced concrete ceiling has **Rw (Rw + C) = 59(57) dB** sound reduction value.
- b **60** dB — Suspended ceiling on double CD stud using vernier hangers with **2 layer Duraline Blue 12.5** board and 50 mm Isover Akusto insulation, under 12 cm thick reinforced concrete ceiling has **Rw (Rw + C) = 60(59) dB** sound reduction value.

SHAFT WALLS AND WALL LININGS WITH DURALINE BLUE BOARDS

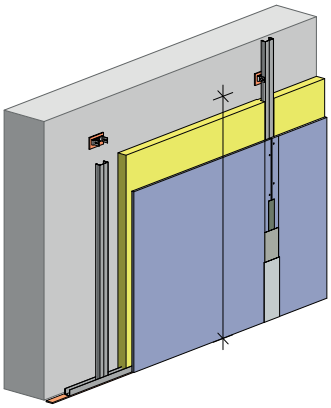
SHAFT WALL

- single-sided installation, mainly for fire protection purposes of machinery shafts
- has independent sound insulation value
- can be installed up to a height of 6 metres
- the vertical CW profiles are bolted together for installation
- suitable for cladding/tiling



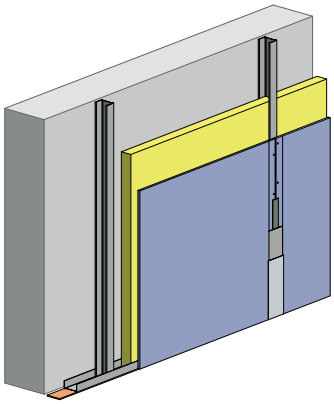
WALL LINING WITH ADJUSTABLE BRACKETS AND CD PROFILE

- dependant structure
- the application enables good sound insulation improvement with low structural thickness (12-15 dB)
- the adjustable brackets are fastened to the wall structure with 900 mm spacing



INDEPENDENT WALL LINING

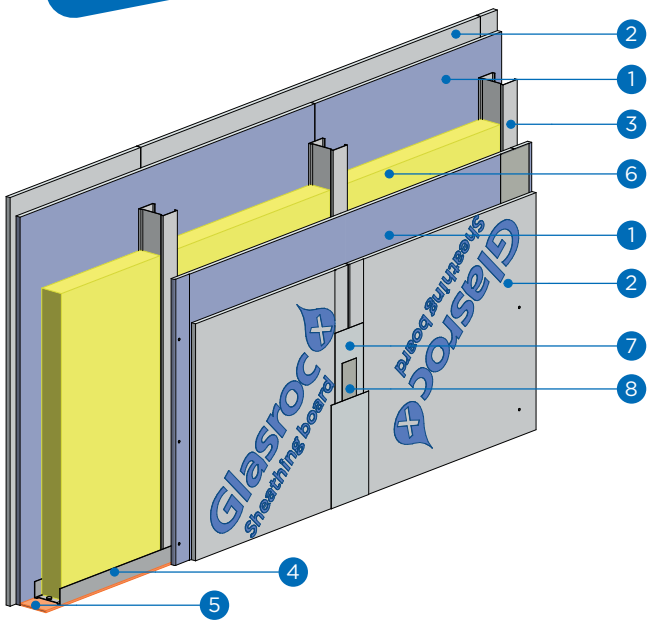
- the application enables good sound insulation improvement (12-15 dB)
- versatile application in renovations
- storage space can be built when constructed till half-height



DURALINE BLUE AND GLASROC X PARTITION WALLS

REACTION TO FIRE: A1

FIRE RESISTANCE: EI 120



A1 EI 120
FEASIBLE WALL HEIGHT 4 METRES

Legend

1. Duraline Blue DB plasterboard
2. Glasroc® X sheating board
3. R-CW 75 Rigiprofil
4. R-UW 75 Rigiprofil
5. Acoustic tape for profile
6. Mineral wool insulation
7. Vario joint filler
8. Jointing reinforcement glass tape

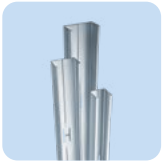
PARTITION INSTALLED ON SIMPLE PROFILE WITH DURALINE BLUE DB PLASTERBOARD AND GLASROC® X SHEATHING BOARD / REACTION TO FIRE: A1

Short marking: Profile size/wall thickness	Partition details: board type and thickness	Distance of CW studs	Wall height	Fire resistance	Insulation: thickness/type		Sound insulation:
[mm]	[mm]	[mm]	[m]	EI [min]	[mm]	típus	Rw(Rw+C)
CW 75/125	2 x (Duraline Blue DB 12.5 + Glasroc® X 12.5)	300	7	EI 30	75	Isover Akusto	-
CW 75/125	2 x (Duraline Blue DB 12.5 + Glasroc® X 12.5)	600	5	EI 90	75	Isover Akusto	56 (52)
CW 75/125	2 x (Duraline Blue DB 12.5 + Glasroc® X 12.5)	600	4	EI 120	75	Isover Akusto	56 (52)

DURALINE BLUE DB AND GLASROC® X COMPONENTS

Duraline Blue DB plasterboard

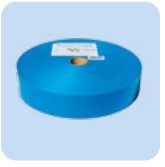
Glasroc® X sheating board



Rigiprofil stud frame: R-UW and R-CW

Vario joint filler

Jointing reinforcement glass tape



Acoustic tape for profile

HartFix screws

Nail dowel

REASONS TO CHOOSE RIGIPS DURALINE BLUE PLASTERBOARDS

SOUND **PROTECTION**

Excellent acoustic performance with low structural thickness, reducing noise transmittion between rooms – ideal for offices, homes and hotels.

MOISTURE **RESISTANCE**

Special additives provide limited water resistance, allowing use in areas with occasional humidity like kitchens and utility rooms.

EASY TO **WORK WITH**

Despite its enhanced performance, Rigips Duraline Blue can be cut, screwed, and installed using standard drywall techniques.

ENVIRONMENTALLY **FRIENDLY**

Made with sustainable processes and materials, meeting environmental certification standards.

ENHANCED **FIRE RESISTANCE**

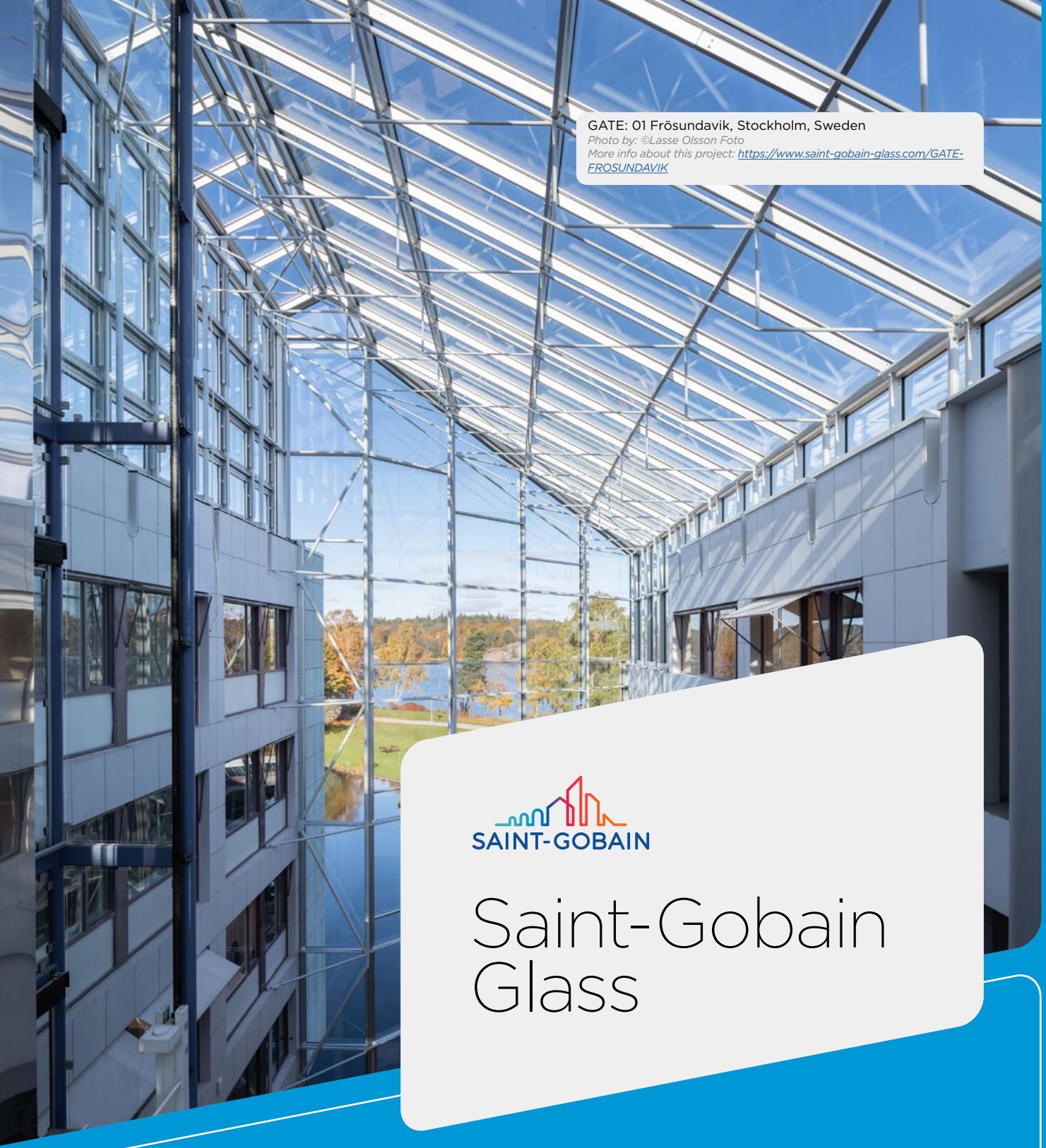
Certified as a fire-resistant board, helping to slow the spread of fire in buildings.

NEED TO KNOW MORE?

Have a question on the Architecture Student Contest 2026 Contest Task?
https://architecture-student-contest.saint-gobain.com/faq-2026

Technical documents
https://www.rigips.hu/

Saint-Gobain HU
https://www.saint-gobain.hu/



GATE: 01 Frösundavik, Stockholm, Sweden
Photo by: ©Lasse Olsson Foto
More info about this project: https://www.saint-gobain-glass.com/GATE-FROSUNDAVIK

SAINT-GOBAIN

Saint-Gobain Glass

Saint-Gobain Glass solutions are designed to elevate both the **functional and aesthetic quality** of interior spaces. By ensuring optimal **thermal balance and abundant natural daylight**, these glazing systems play a vital role in creating comfortable, **energy-efficient environments**. They help maintain stable indoor temperatures throughout the year, **reducing the need for artificial heating or cooling** and thus contributing to **lower energy consumption**.

At the same time, Saint-Gobain Glass enhances **visual comfort**—flooding interiors with soft, natural light while preserving clear, **beautiful views of the surroundings**. With a wide range of coatings, finishes, and performance options, these glass solutions combine technical excellence with high aesthetic value. Whether used in residential, commercial, or public buildings, they allow architects to design bright, open, and sustainable spaces without compromise. This chapter explores how Saint-Gobain Glass supports both thermal performance and architectural vision.

SAINT-GOBAIN GLASS

OPTION 1

Glazing 1
PLANICLEAR (5mm) - Annealed
PVB SILENCE (0.76mm)
PLANICLEAR (5mm) - Annealed
COOL-LITE XTREME 61-29

Cavity 1
Argon 90% 16 mm
Swisspacer Ultimate Pro

Glazing 2
PLANICLEAR (6mm) - Annealed

Cavity 2
Argon 90% 16 mm
Swisspacer Ultimate Pro

Glazing 3
PLANITHERM XN
PLANICLEAR (4mm) - Annealed
PVB SILENCE (0.76mm)
PLANICLEAR (4mm) - Annealed

TL %	g-value	RL2 %	Rw	Ug
53	0.25	12	49	0.5

OPTION 2

Glazing 1
DIAMANT (5mm) - Annealed
PVB SILENCE (0.76mm)
DIAMANT (5mm) - Annealed
COOL-LITE XTREME 70-33

Cavity 1
Argon 90% 16 mm
Swisspacer Ultimate Pro

Glazing 2
DIAMANT (6mm) - Annealed

Cavity 2
Argon 90% 16 mm
Swisspacer Ultimate Pro

Glazing 3
PLANITHERM XN
DIAMANT (4mm) - Annealed
PVB SILENCE (0.76mm)
DIAMANT (4mm) - Annealed

TL %	g-value	RL2 %	Rw	Ug
64	0.30	13	49	0.5

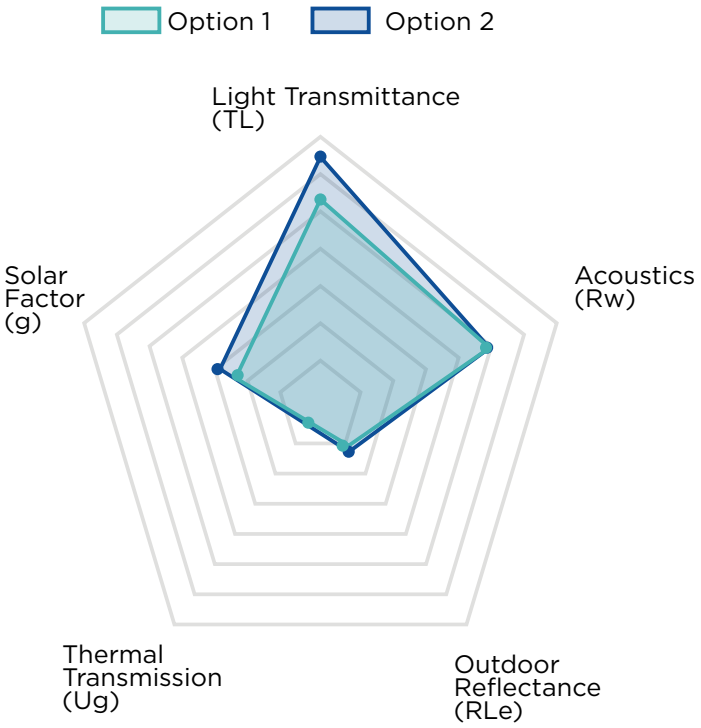
OPTION 1

55.2 SI (16 Argon 90) 6 (16 Argon 90) 44.2 SI [Swisspacer Ultimate Pro]
COOL-LITE XTREME 61-29 #4 / PLANITHERM XN #7

OPTION 2

55.2 DIAMANT SI (16 Argon 90) 6 DIAMANT (16 Argon 90)
44.2 DIAMANT SI [Swisspacer Ultimate Pro]
COOL-LITE XTREME 70-33 #4 / PLANITHERM XN #7

PERFORMANCES COMPARISON



Thermal Transmission - Ug [W/(m2.K)]

Solar Factor - g-value

Light Transmittance - TL [%]

Acoustics - Rw [dB]

SAINT-GOBAIN

FULL PERFORMANCES REPORT

	OPTION 1	OPTION 2
	55.2 SI (16 Argon 90) 6 (16 Argon 90) 44.2 SI [Swisspacer Ultimate Pro] COOL-LITE XTREME 61-29 #4 / PLANITHERM XN #7	**55.2 DIAMANT SI (16 Argon 90) 6 DIAMANT (16 Argon 90) 44.2 DIAMANT SI [Swisspacer Ultimate Pro]** COOL-LITE XTREME 70-33 #4 / PLANITHERM XN #7
LUMINOUS FACTORS	**CIE015:2018**	**CIE015:2018**
Light Transmittance (TL)	53 %	64 %
Outdoor Reflectance (RLe)	12 %	13%
Indoor Reflectance (RLi)	16 %	16 %
ENERGY FACTORS	**EN410:2011**	**EN410:2011**
Transmittance (TE)	22 %	26 %
Outdoor Reflectance (Ree)	30 %	36 %
Indoor Reflectance (Rei)	30 %	35 %
Absorptance A1 (AE1)	45 %	35 %
Absorptance A2 (AE2)	1 %	0 %
Absorptance A3 (AE3)	3 %	3 %
Absorptance A4 (AE4)	%	%
SOLAR FACTORS	**EN410:2011**	**EN410:2011**
Solar Factor (g)	0.25	0.30
Shading Coefficient (SC)	0.29	0.34
THERMAL TRANSMISSION	**EN673:2011**	**EN673:2011**
Ug	0.5 W/(m2.K)	0.5 W/(m2.K)
Angle relative to the vertical	0°	0°
ACOUSTICS	**EN 12758**	**EN 12758**
Rw	Acoustic simulated values	Acoustic simulated values
Ra	49 (-2; -7) dB	49 (-2; -7) dB
Ra, tr	47 dB	47 dB
STC (ASTM E413)	42 dB	42 dB
OITC (ASTM1332)	49	49
	42	42
COLOR RENDERING	**CIE015:2018**	**CIE015:2018**
Transmission (Ra)	88.6	94.4
Reflection (Ra)	87.8	89
SAFETY CLASS	**EN12600**	**0.25**
Pendulum Body Resistance	1B1/NPD/1B1	1B1/NPD/1B1
ANTI-BURGLARY	**EN356**	**EN356**
Burglar Resistance	P2A/NPD/P2A	P2A/NPD/P2A
MANUFACTURING SIZES		
Nominal Thickness	57.5 mm	57.5 mm
Weight	62 kg/m²	62 kg/m²
SUSTAINABILITY CARBON FOOTPRINT	The value is calculated regarding the composition computed based on the standard EN 15804+A2 (2019)	The value is calculated regarding the composition computed based on the standard EN 15804+A2 (2019)
Global Warming Potential (GWP) – A1-A3 (kg, CO_2 eq./m²)	105	109

SAINT-GOBAIN

REASONS TO CHOOSE SAINT-GOBAIN GLASS

EXCEPTIONAL **COLOR NEUTRALITY**

These premium glazings offer minimal color distortion, ensuring true-to-life views and design consistency.

LOW SOLAR FACTOR **FOR SOLAR CONTROL**

It minimizes heat gain through glazing, reducing cooling loads while maintaining transparency and comfort.

SUPERIOR DAYLIGHT **ENHANCEMENT**

High light transmittance maximizes natural daylight, reducing the need for artificial lighting and improving occupant well-being.

OPTICAL AND AESTHETIC **BRILLIANCE**

Ultra-clear, low-iron Diamant glass ensures high visual clarity and a premium aesthetic finish for facades and interiors.

OUTSTANDING **THERMAL INSULATION**

Cool-Lite Xtreme delivers ultra-low U-values, significantly improving energy efficiency in both summer and winter.

HIGH LIGHT **TRANSMITTANCE**

Combining clarity with performance, these glazings allow high levels of daylight without compromising energy efficiency.

SAINT-GOBAIN

REASONS TO CHOOSE SAINT-GOBAIN GLASS

ENHANCED ACOUSTIC **PERFORMANCE**

Paired with acoustic interlayers, these glass types contribute to quieter indoor environments in urban settings.

SUSTAINABILITY AND ENVIRONMENTAL **CONTRIBUTION**

Saint-Gobain glass supports green building certifications with high performance and low environmental impact.

DESIGN VERSATILITY AND **VISUAL UNIFORMITY**

Their neutral appearance and high performance make them suitable for both modern and classic architectural styles.

TRUSTED INNOVATION **FROM A GLOBAL LEADER**

Backed by Saint-Gobain's proven expertise and R&D, architects gain access to cutting-edge glazing technology.

NEED TO KNOW MORE?

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https://architecture-student-contest.saint-gobain.com/faq-2026

Technical documents
https://www.saint-gobain-glass.de/de

Saint-Gobain DE
https://www.saint-gobain.de/

ARCHITECTURE STUDENT CONTEST

SAINT-GOBAIN