

ILLBRUCK i3 SYSTEM

i3

**ADVANCED
SEALING
SOLUTIONS
FOR
MODERN
CONSTRUCTION**



The illbruck i3 window sealing system offers an advanced, universal solution for perimeter sealing of windows, ensuring weather resistance while enhancing comfort and energy efficiency. Developed to meet evolving building regulations and prevent air leakage, it combines products like TP600 illmod Compriband Foam Tape, ME508 Duo Membrane EW/F, and FM330 Pro Foam to create a robust, vapour-permeable, and airtight seal.

This system effectively reduces condensation, maintains thermal insulation, and complies with stringent performance standards, making it ideal for modern construction requirements.

i3 is an externally weatherproof system, which also prohibits the formation of condensation and prevents thermal bridging around the frame. This is a problem that can lead to a reduction in the level of thermal insulation, damage to building components and mould formation, and importantly compromise the benefits of a very energy efficient window or door. The high expense of an A++ (BFRC Window Energy Rating) or low U-value, eg 1.2 W/m².K can be enhanced by a highly effective sealing system.

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**Quality
Products from
a Single Source
Supplier**



The i3 Window Sealing System and How It Works

“Inside Tighter Than Outside”

illbruck's i3 system is a window (or door) perimeter sealing system providing three functional levels: Weather, airtightness, and insulation. By installing appropriate products that provide these functions, a robust seal is achieved which ensures that the weather and energy-saving properties of the window (or door) will be maintained.

Proper sealing is an effective interaction of the outer, middle, and inner sealing levels on the principle of “inside tighter than outside.” By selecting appropriate

products from our seven system components, various combinations can be created to suit the installation situation. The resulting system will meet all the requirements of modern sealing conventions.

Available exclusively from illbruck, the i3 window systems offer protection for window sealing. By analysing common requirements, illbruck has created three core i3 systems, combining products to address specific needs like sound insulation, as well as simplified solutions for quick assembly and renovation joints.



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on i3 systems

www.illbruck.co.uk/i3system



Internal Sealant:

This layer blocks humid air from entering the central part of the window sealing system, thus preventing condensation in areas where surface temperatures fall below the dew point. Additionally, it prevents uncontrolled energy losses, whether heat or cold and stops unwanted air currents.



Intermediate Sealant:

This layer ensures the maintenance of thermal and acoustic insulation. Entirely filling the gap between the window frame and the wall/cavity closer, with a thermally insulating and soundproofing material. The area must remain dry and free from internal condensation and external rain influence, as moisture negatively impacts insulation performance.



External Sealant:

The final layer also protects against the elements, acting as a barrier to wind and rain. The external sealant should be permanently tight against driving rain, but still open to allow for vapour to escape to the external atmosphere.

i3 for Low-Energy Buildings

For low-energy buildings, using the i3 systems helps maintain optimal insulation, reduces energy consumption, and supports compliance with stringent building regulations, promoting sustainability and healthy living environments.

Low-energy buildings in the UK aim to minimise energy consumption and reduce carbon emissions. They are often designed to meet stringent energy performance standards, such as the Passivhaus standard, which requires extremely low heating and cooling needs. Key features include high levels of insulation, energy-efficient windows, and airtight construction to prevent heat loss and draughts.

Internal Sealant:



ME508 High-Tack Self Adhesive Internal Airtight Window Sealing Membrane

Part of illbruck’s intelligent membrane range, ME508 provides excellent air tightness to Passivhaus standards whilst allowing water vapour to diffuse out to the exterior of the building, ensuring no moisture build up which can lead to mould and mildew.



ME481 Vapour & Watertight Self Adhesive Butyl Membrane

A membrane on a roll with fire classification B-s2,d0 to EN13501-1, composed of a laminate film with a layer of modified butyl rubber adhesive, aluminium foil finish and a siliconised release liner.

Intermediate Sealant:



FM330 Pro Foam Air Seal

FM330 is ideal for use as an air tight gap filler for general construction joints including where movement is expected to occur. It is suitable for applications such as airtight window and door perimeter joint seals, sealing floor to wall and wall to ceiling joints and pipe & service penetrations.

External Sealant:



TP600 illmod 600 Foam Tape

TP600 is an impregnated joint sealing tape for use in a wide variety of movement joints including window perimeter seals and other applications. TP600 is a soft and flexible open cell polyurethane foam, impregnated with an acrylic based, UV stabilised resin.



FA880 Premium Natural Stone Silicone Matt

FA880 is a one component, low slump silicone guaranteed not to cause migratory staining on natural stone. It is neutral curing for safe sealing of stonework and has a matt finish. Contains fungicide. FA880 is classified according to EN15651 for use in cold climates.



FS125 Premium Frame & Facade Silicone

FS125 is a one-part, neutral curing, low modulus, low odour silicone sealant suitable for perimeter joint sealing applications with high movement capability. It has excellent primerless adhesion to multiple surfaces including masonry, brick, aluminium, PVC-U, polycarbonate, polyacrylate, wood, painted wood, glass and glazed surfaces.



i3 for PassivHaus

Illbruck i3's advanced sealing capabilities align well with the Passivhaus standard's emphasis on airtightness and thermal efficiency. Using the i3 system in Passivhaus projects can help ensure that the building envelope is properly sealed and insulated, contributing to the overall energy efficiency and performance required by the Passivhaus criteria.

Core Principles of Passivhaus:

- **Thermal Insulation:** High levels of insulation to reduce heat loss
- **High-Performance Windows:** Windows require excellent insulation properties and proper orientation to maximise solar gain.
- **Mechanical Ventilation with Heat Recovery (MVHR):** Systems that provide fresh air while recovering heat from the outgoing air.
- **Airtight Construction:** Minimising leaks and draughts to enhance energy efficiency
- **Thermal Bridge-Free Design:** Avoiding areas where heat can bypass insulation, thus preventing thermal bridges.



Internal Sealant:



ME508

High-Tack Self Adhesive Internal Airtight Window Sealing Membrane

Part of illbruck's intelligent membrane range, ME508 provides excellent air tightness to Passivhaus standards whilst allowing water vapour to diffuse out to the exterior of the building, ensuring no moisture build up which can lead to mould and mildew.



ME350

Interior Membrane Pro

ME350 is designed to provide a perimeter window seal for airtight internal joints. ME350 has excellent adhesion properties on several common building substrates and can be plastered or over painted.

Intermediate Sealant:

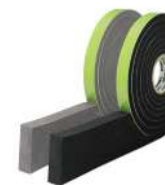


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FA880

Premium Natural Stone Silicone Matt

FA880 is a one component, low slump silicone guaranteed not to cause migratory staining on natural stone. It is neutral curing for safe sealing of stonework and has a matt finish. Contains fungicide. FA880 is classified according to EN15651 for use in cold climates.



FS125

Premium Frame & Facade Silicone

FS125 is a one-part, neutral curing, low modulus, low odour silicone sealant suitable for perimeter joint sealing applications with high movement capability. It has excellent primerless adhesion to multiple surfaces including masonry, brick, aluminium, PVC-U, polycarbonate, polyacrylate, wood, painted wood, glass and glazed surfaces.

i3 for High-Rise Construction

Illbruck's i3 sealing system is known for its effectiveness in ensuring energy efficiency and weather protection in building envelopes. When applied to high-rise buildings, it offers several benefits and considerations:

Airtightness: High-rise buildings require meticulous attention to airtightness to prevent energy loss and maintain indoor comfort. The i3 system delivered by Illbruck contributes towards achieving and maintaining the required airtightness levels.

Energy Efficiency: In tall buildings, reducing energy consumption is critical. Illbruck's i3 helps in this aspect by minimising air leakage and enhancing thermal insulation, thereby reducing the need for heating and cooling.

Durability and Performance: High-rise buildings are exposed to varying weather conditions and structural movement. Illbruck's i3 durable materials and design contribute to long-term performance, resisting weather elements, and accommodating building movement.

Compliance and Standards: Products within the i3 system meet stringent building codes and standards required for high-rise construction, ensuring compliance with the latest building regulations within the UK.

Internal Sealant:



ME508

High-Tack Self Adhesive Internal Airtight Window Sealing Membrane

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Intermediate Sealant:



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Pro Foam Air Seal

FM330 is ideal for use as an air tight gap filler for general construction joints including where movement is expected to occur. It is suitable for applications such as airtight window and door perimeter joint seals, sealing floor to wall and wall to ceiling joints and pipe & service penetrations.

External Sealant:



TP600

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SP530

Proflex Seal 50

SP530 is a low modulus sealant formulated using advanced Tremco SP polymer technology. Its movement capability is classified as MAF50 and has excellent primerless adhesion to many substrates and long-term performance.



The Illbruck Difference



Product Systems

Saving you time and money

Our i3 systems are specifically designed to offer a range of solutions to minimise your efforts whilst maximizing building energy efficiency.

Our team works closely with architects and specifiers across the UK to ensure that the requirements of the building regulations are met, whilst also ensuring cost-effective solutions to window sealing.



10 year guarantee available



Expert Team

Access to Top-Level Expertise

Window sealing is a complex and ever-evolving field, with new specifications, higher demands, and innovative materials and processes emerging constantly. Our team is well-versed in the latest developments and regulations and remains current through continuous training.

Trust and Local Presence:

- Our nationwide sales network ensures we are always available to answer your questions quickly and personally.

Comprehensive Support:

- We offer assistance in planning, specifications, providing quotes, and on-site instruction.

End-to-End Guidance:

- Your consultant will support you throughout the entire project, from start to finish, because your success is our measure of achievement.



Service

Expert Advice and Training

Here at illbruck, we offer comprehensive services throughout every phase of your projects, from specification to support in technical calculations, installation guidance, and project warranties.

Our tailored training courses help prevent issues on-site and address the specific needs of your company and teams. Reach out to us to learn more about:

- Training Courses and Webinars
- Specification Support & Toolbox Talks
- Recommended Fitters within your local area



Sustainability

Certified Durability And Safety

At illbruck, sustainability is a priority from the very beginning. Our products are certified and sealed to confirm their eco-friendliness and safety.

They are designed to ensure safe installation practices and reduce waste to landfill on site. Sustainability for illbruck also means ensuring the longevity of our products, which is why they are rigorously tested against strict criteria and legal regulations.





THE i3 GUARANTEE

Discover the difference when using i3 systems

Opting for a BBA-certified i3 system from illbruck ensures that you are investing in a high-quality, performance-tested sealing solution that meets rigorous industry standards and offers long-term benefits for your construction project.

What does it mean to have a BBA certification:

Quality Assurance: BBA accreditation ensures that the product has undergone rigorous testing and assessment for quality, durability, and performance. This certification assures the reliability and suitability of the system for intended applications.

Innovative Technology: illbruck's i3 system incorporates technology aimed at enhancing building envelope performance. This includes advanced materials and design features that optimise insulation and sealing effectiveness.

Long-term Reliability: With BBA accreditation, the i3 system is validated for long-term durability and reliability. This can lead to reduced maintenance needs and extended lifespan of building components, contributing to overall cost savings.

In addition to the quality and performance benefits of the BBA-accredited i3 sealing system from illbruck, another significant advantage is the 10-year i3 performance guarantee offered by illbruck.

Builders, architects, and developers can gain peace of mind knowing that the i3 system will continue to deliver reliable air, wind, and water tightness for at least 10 years after installation and by offering a guarantee illbruck demonstrate their commitment to quality and customer satisfaction.

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