Solutions to Thermal Bridging.
Sustainable Comfort and Efficiency.
The Balcony Connects to the Outdoors. 
Insulate with Structural Thermal Breaks.

Buyers Demanding Luxury
Luxury condominiums with extended views, enhanced comfort, and sustainable initiatives are in demand. Developers are differentiating by providing high-performance efficiencies coupled with luxury features. One such feature is the balcony, cantilevering from the residence and adding square footage to the outdoor space.

Balconies and Thermal Bridging
While balconies provide an advantage to gaining buyers, no feature is worth future construction repairs and damaging your image. When constructing a cantilevered balcony, thermal bridging must be dealt with to avoid cold floors, energy loss, and potential mold growth.

Mitigate Thermal Bridging.
The thermal bridging issue has a long history of damages relating to leaky balconies and building envelope failures. The resulting moisture and mold damages extend from health, liability and property damages. The solution is simple with innovative construction methods for balconies.

A Balcony Divided
Interior concrete floors penetrating through the wall to the exterior balcony requires insulation to limit heat loss and avoid cold floors at the interior. Schöck Isokorb® structural thermal breaks are a simple solution to insulating the balcony connection.

High-performance balconies provide added outdoor areas without the risk of thermal bridging damages.

Placement of structural thermal breaks in the balcony to ensure a continuous insulation layer.

Surface Temperatures

Structural thermal breaks can increase surface temperatures by up to 13°F / 7°C

Operating Costs

Structural thermal breaks reduce operating costs for heating with savings in energy costs of up to 14%

1. Morrison Hershfield Thermal Performance of Building Envelope Details for Mid- and High-Rise Buildings (1365-RP)

Schöck Isokorb®

- Avoids maintenance costs and damages to the buildings due to condensation and mold.
- Reduces operating costs for space heating with energy savings up to 14%
- Improves living comfort by increasing the surface temperature by up to 13 °F / 7 °C.
Avoid Cold Feet.
Prepare for the Changing Codes.

Schöck Isokorb® is a structural thermal break. This high-quality German product is engineered to solve thermal bridging, reducing the heat loss by 75% through the balcony. With over 30 years of proven performance, Schöck Isokorb® will set your property apart with ease of design and energy efficiency.

Comfort is “in” and warm floors are possible with Schöck Isokorb®. The energy savings are passed on to the buyer, and the risk of mold and moisture is mitigated.

Sustainable-luxury for Future Codes
Providing an energy efficient property with Schöck Isokorb® demonstrates your commitment to quality and comfort to your buyers. Now is the time to future-proof your buildings for continuous insulation code changes.

Liability of the Balcony
As the developer, you have the responsibility of the balcony. Provide thermal efficiency at the core with Schöck Isokorb® for high-performance quality.

Operating Costs

Compared to a conventional continuous balcony, structural thermal breaks cut heat flow through and around the slab by 75%.

Cold feet are a common complaint in concrete structures which can easily be solved with Schöck Isokorb® structural thermal breaks.
Balconies enhance our views and extend buildings with a panoramic outdoor space. And while balconies provide aesthetic advantages, they often require extensive repairs and upkeep.

Balconies as a feature versus issue

The solution to balcony construction issues is quite simple with innovative construction methods for balconies, which add a creative facet to durable design.

Sustainable-luxury for the future

Providing energy efficient construction with Isokorb® structural thermal breaks demonstrates dedication to quality and comfort in your properties. It is time to future-proof your buildings for upcoming code changes by preparing to stay one step ahead with Schöck Isokorb®.

Sources

/uni2460 Oxford Brookes University, Oxford Institute for Sustainable Development (OISD Technology), Report 060814SCH, Thermal Performance of Steel Beam Junctions using Different Connection Methods

/uni2461 Morrison Hershfield Thermal Performance of Building Envelope Details for Mid- and High-Rise Buildings (1365-RP)

/uni2462 RDH Research and Energy Group, ICBEST 2014 Enclosure Capital Load and System Cost Distributions


**What is a thermal bridge?**

Thermal bridges are localized areas with higher thermal conductivity than their neighboring areas. Heat flow takes the easiest path.

The thermal bridging issue has a long history of damages relating to leaky balconies and building envelope failures. The most common problem with balconies is thermal bridging which causes cold floors, energy loss, and condensation damage with potential mold growth.

Thermal breaks provide increase surface temperatures, reducing the risk of condensation and moisture.

![Without Thermal Break](image1)

![With Thermal Break](image2)

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Thermal breaks reduce operating costs for heating with savings in energy costs of up to 11.5°F/6.3°C. Compared to a conventional continuous balcony, structural thermal breaks cut heat flow through and around the slab by 2.2°F/1.2°C. This reduces the risk of mold growth and increases surface temperatures, reducing the risk of condensation and moisture.
We partner early in the design process.
Schöck is dedicated to exceptional customer service and support. Our team assists with construction inquiries through the installation process to ensure your success and satisfaction. Prepare to stay one step ahead with Schöck Isokorb®.

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To ensure the high quality residence Alfa Development buyers expect, Schöck Isokorb® structural thermal breaks are installed to ensure thermal comfort and sustainable structures.
Our experts in the Technical Design Support department are ready to help you with your design and construction inquiries by providing general advice, along with detailed plans, project solutions, building physic analysis and calculations where necessary.

Exceptional customer service and support are paramount to our success and we offer:
- Structural planning and design services
- Building physics analysis
- Technical assistance
- In-house training
- AIA CES seminars
- Manufacturer’s installation guidance

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