

Insulated Panel Systems
North America



IMP + Concrete Stacked Walls Systems Solution Guide

Insulated Wall Panel Systems



POWERED BY
QuadCore[®]
TECHNOLOGY

The Kingspan logo, featuring a stylized golden lion head above the word "Kingspan" in a bold, blue, sans-serif font.

Construction Solutions

Insulated metal panels (IMPs) and concrete (tilt-up, pre-cast or masonry) are two of the most commonly used materials for constructing building envelopes. Both materials offer unique advantages, making a hybrid approach beneficial in many applications. By combining concrete and IMPs, designers can enhance the aesthetics, functionality, and sustainability of both new and retrofit buildings.

These wall construction solutions are designed to fully comply with relevant building codes, regulations, and standards (structural, thermal, fire, acoustic, and resilience), and to meet ASHRAE 90.1 Continuous Insulation & Air Tightness Requirements.



Insulated Metal
Wall System with
Pre-cast Concrete



Construction Solutions



Insulated Metal Wall
System with CMU
Blockwork



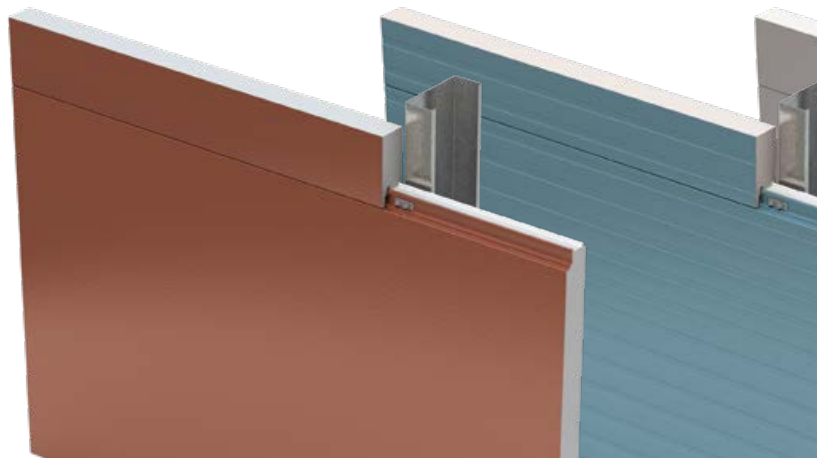
Insulated Metal Wall
System with Pre-cast
Loading Docks



Design Flexibility

In addition to providing water, air, vapor, and thermal control, IMPs are available in a wide range of profiles, colors, and finishes, offering enhanced design flexibility to meet both performance and aesthetic goals.

This flexibility is particularly valuable in stacked wall construction, where IMPs can be used to visually elevate and complement concrete structures, and where the mixing of metal and masonry materials can help create a balanced, cohesive, and refined architectural appearance. The result is a building envelope that performs at a high level while delivering a modern, intentional, and visually compelling design.





IMP + Concrete Stacked Walls
Systems Solution Guide



Higher Building Performance
with Kingspan

It's all in the gray cells

QuadCore® Technology is Kingspan's next generation of self-blended hybrid insulation core. Across the world of insulated panels, this innovation with its distinctive gray microcells powers the industry's highest combined performance:

- Exceptional thermal efficiency
- Superior fire protection
- Unmatched health & wellness certification
- 30-year thermal warranty

QuadCore® Technology, together with our end-to-end services and whole building design know-how, takes Kingspan buildings to a higher level of lifetime performance, and delivers the ultimate protection for our partners, their buildings, and the environment for future generations.



360°
Services

Whole
Building
Design

Warranty

POWERED BY

QuadCore®
TECHNOLOGY

1

Exceptional thermal efficiency

QuadCore® Technology is certified as one of the most thermally efficient closed-cell insulation cores on the market.

Lifetime performance and value benefits

- The highly efficient R-value of R-8.0 per inch has the potential to reduce HVAC size, and lower both energy consumption and carbon emissions.
- QuadCore® Technology is a more streamlined solution relative to other insulation materials with associated benefits in interior space optimization, for specific transport, and ease of handling during construction.

2

Superior fire protection

The hybrid nature of QuadCore® Technology delivers a range of improvements in fire performance which surpass all other insulated panel systems incorporating closed-cell insulation materials.

Lifetime performance and value benefits

- For any building owner that wants the best protection against the impact of fire, the unique low smoke characteristics of QuadCore® Technology provide the optimum solution.
- QuadCore® Technology also delivers improved fire resistance ratings leading to more cost-effective installations due to economies in steelwork and fixing, in certain applications.

3

Unmatched health & wellness certification

The improved thermal performance of QuadCore® Technology helps to optimize resource efficiency. It is also CFC, HCFC, HFC free and has a very low Global Warming potential.

Lifetime performance and value benefits

- GREENGUARD Gold certified
- Environmental Product Declaration (EPD)



4

30-year thermal warranty

The inimitable science behind QuadCore® Technology and comprehensive independent third-party testing has delivered the industry an unparalleled 30-year thermal performance warranty.



Making Strides Towards Our Sustainability Targets

At Kingspan, our mission is to accelerate a net-zero emissions future-built environment with people and planet at its heart. Planet Passionate is our ambitious Group-wide environmental sustainability program that sets several aggressive targets across four focus areas: **carbon**, **energy**, **circularity** and **water**.

Planet Passionate touches every aspect of Kingspan's business, from our material suppliers and employees to our customers and the communities in which we work. We're committed to working together to address the material impacts we have on our environment and community by setting robust, specific targets like those outlined below and pursuing an accelerated pace for progress.



CARBON

Reduce Our Carbon
Footprint

- 65% reduction in scope 1 & 2 GHG emissions by 2030
- 15% reduction in carbon intensity of key raw materials by 2030
- 90% annual replacement of zero emissions company funded cars



ENERGY

Increase the Use of
Renewable Energy

- 60% direct renewable energy use by 2030
- ISO 50001 Energy management certification for large sites by 2030
- Solar PV systems on all wholly owned facilities by 2030

Learn More at
Kingspan's Sustainability
Resource Center



planetpassionate.kingspan.com



CIRCULARITY

Increase Recycling and
Lower Waste

- Zero company waste to landfill by 2030
- 1.5 Million Tons of recycled/renewable raw materials used annually by 2030
- Facilitate 20 product takeback and recycling schemes by 2030



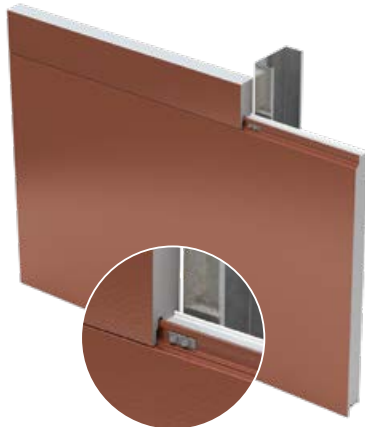
WATER

Harvest Rainwater and
Support Ocean Clean-up

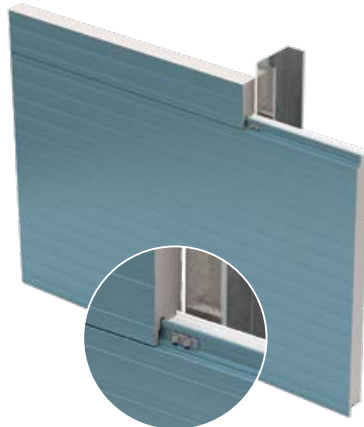
- Harvest 100 million liters of rainwater annually by 2030

Products at a Glance

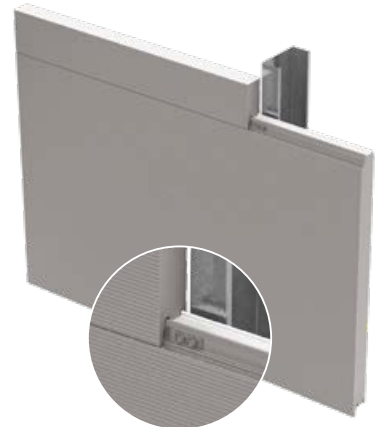
Wall – Vertical and Horizontal Application



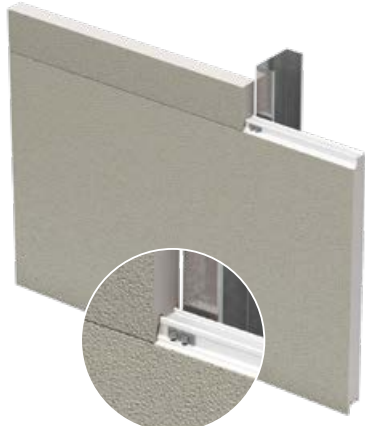
KS Azteco™



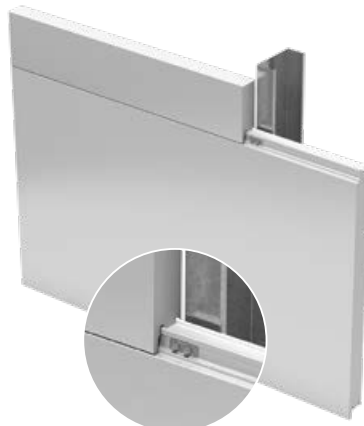
KS Shadowline



KS Mini Micro-Rib



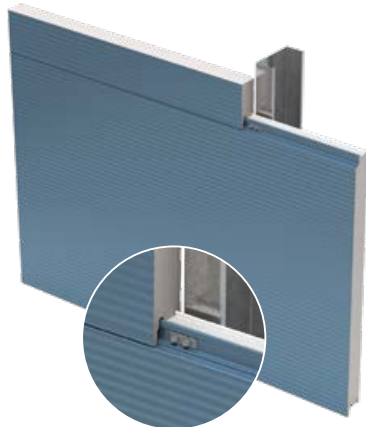
KS Granitstone®



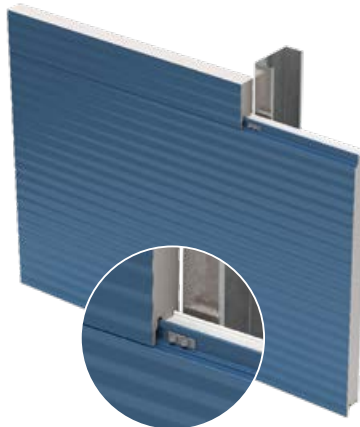
Optimo®



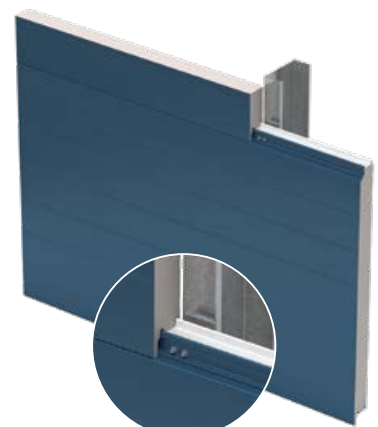
K-Roc™ HF



KS Micro-Rib



KS Mini-Wave



KS Vektra™



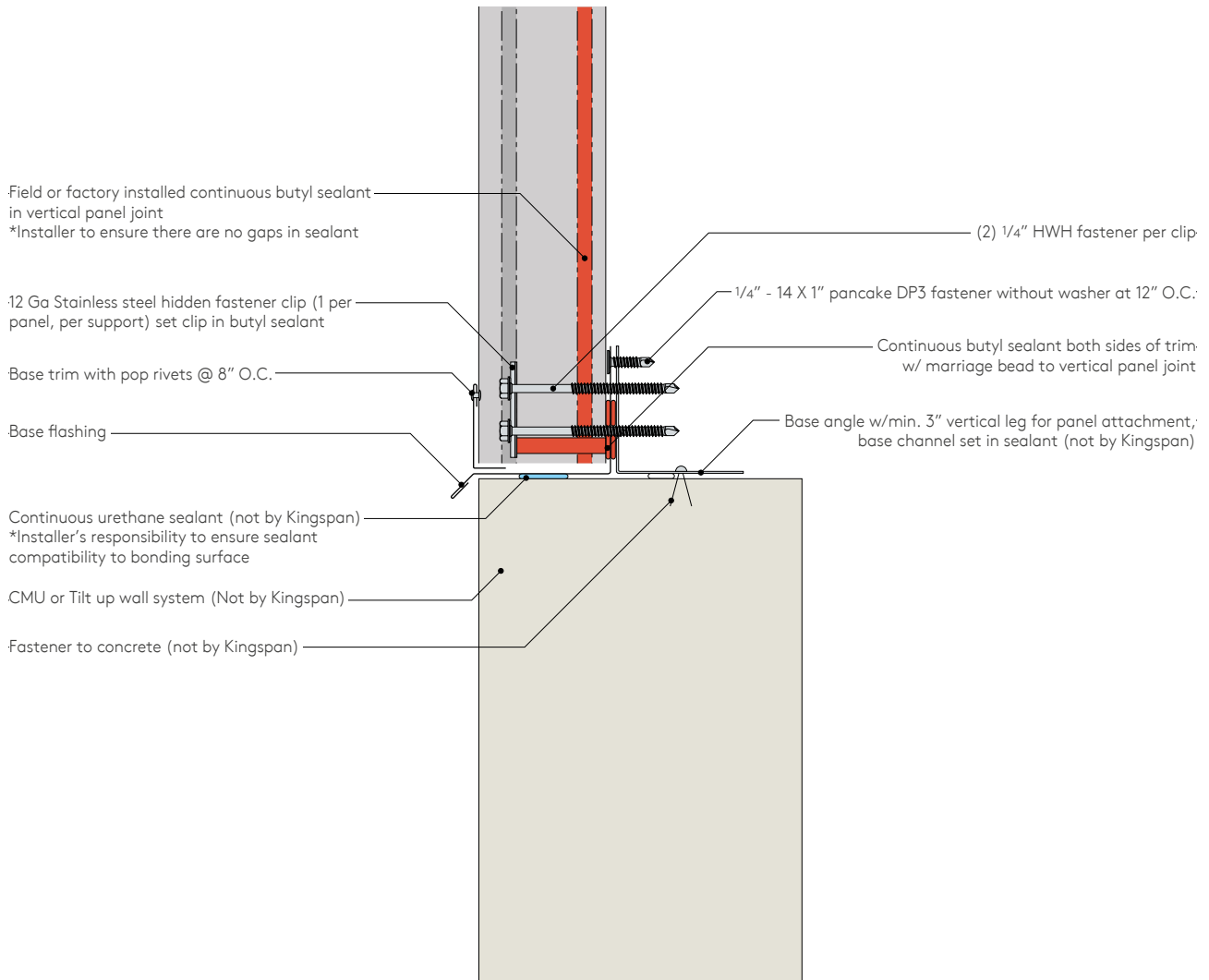
QuadCore® B Vale®

Construction Details

Wall Panel Base to Tilt Up or CMU Wall



Wall Panel Base to Tilt Up or CMU Wall



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For the product offering in other markets please contact your local sales representative or visit our website.

To ensure you are viewing the most recent and accurate product information, please visit www.kingspanpanels.us or www.kingspanpanels.ca.

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