IPS®

INSULATED PANEL SYSTEMS

Meeting Today's **BUILDING DEMANDS**

We're committed to providing you with the

highest quality products and professional service

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IPS is here to help you meet the demands of today's construction industry. We're committed to providing you with the highest quality products and professional service. We understand that you're looking for energy efficient materials that provide lower operating costs for buildings. And, with green building continuing as a requirement to some and an important feature to others, it's vital that you receive the optimal product to meet these needs.

Don't be mistaken, though. IPS panels are not only excellent for meeting green building requirements; they're great for almost any construction building project. We produce panels that offer endurance, beauty and thermal efficiency. We have a multitude of color and texture offerings and panel profiles from which to choose so you can customize your building to meet your essentials in both design and function. With our applied surface finishes, you can have the efficiency of a metal building without the appearance of a typical metal building. And because of our new facility, IPS' technologically advanced manufacturing capabilities allow us to increase our production abilities threefold.

IPS is a leading manufacturer of insulated metal roof and wall panels that are ideal for a wide range of building projects and green building construction. All IPS products undergo stringent testing and quality control processes to ensure your project receives high performance panels.

R-Value, U-Value and K-Factor

R-value is used to describe one of the properties of insulation; it measures resistance to heat flow. A higher R-value provides increased insulation. K-factor, or thermal conductivity, is the measure of a material's ability to transfer heat. A lower K-factor is preferred. U-value is the measure of how much heat is conducted through a given area of material. Again, a lower U-value is more beneficial. U is equal to 1/R. For example, a material with a U-value of 0.25 has an R-factor of 1 divided by 0.25, which is equal to 4.

PRODUCT BENEFITS

Insulated metal panels (IMPs) have been around for several years and continue to play an important role in building construction as they offer many benefits and incentives. They consist of two single-skin metal panels and a foamed-in-place core. IMPs are sealed at the side laps and all perimeter boundaries. The excellent R-values that are achieved with IMPs provide enhanced energy performance for buildings utilizing our products.

Using IMPs for your building projects yield many advantages, not only for the building owner, but also for the building designer and erector.

- IPS panels are strong enough to allow for fewer structural supports than single skin panels due to greater spanning and load bearing capabilities, providing an economical and efficient building envelope.
- IMPs allow for fast erection times and easy installation, resulting in reduced labor costs and earlier business starts.
- Metal roof and wall systems require minimal maintenance and can lead to potential cost savings over their lifetime, including energy costs, maintenance costs and more.
- Because of the insulating capabilities of IMPs, less insulation space is needed to comply with building energy efficiency codes compared to fiberglass systems. Buildings using non-rigid insulation such as fiberglass can require up to four times the amount of insulation space compared to IMPs.

INCENTIVES FOR USING IMPS

- Federal tax credits are available for thermally efficient new construction meeting certain requirements.
- The commercial building energy tax deduction may be available to the primary designer of state and municipal buildings utilizing energy efficient designs. Consult your tax specialist for more details.
- Many state and local financing and tax incentives exist for energy efficient construction.

GREEN BUILDING AND ENERGY EFFICIENCY BENEFITS

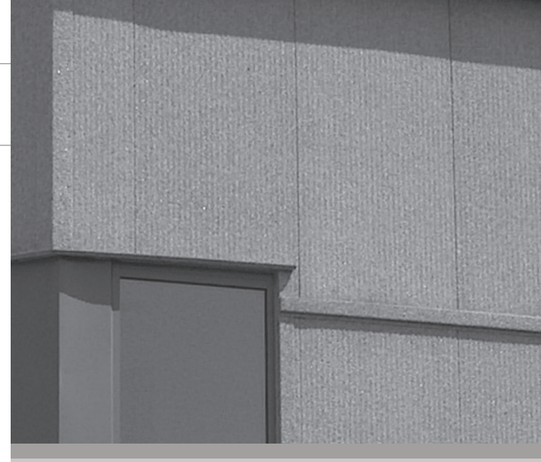
As newer standards and stricter codes call for more environmentally friendly and energy efficient buildings, IPS panels accommodate your needs to meet these requirements:

- IPS panels qualify as continuous insulation (ci) where required by the International Energy Conservation Code® (IECC) and ASHRAE 90.1. Continuous insulation is a product that runs continuously over structural members and is free from significant thermal bridging.
- **Having been tested for air infiltration, IPS panels have the ability to function as Continuous Air Barriers (CABs) with their unique self-sealing side joints when properly detailed and installed.** By keeping the internal and external environments separate, CABs enhance energy efficiency and are required by newer building energy efficiency codes and standards.
- Using IPS panels mitigates thermal drift, a degradation of R-values over time. Thermal drift is a prevalent factor when using un-faced polyisocyanurate rigid board insulation, which can lose up to 20 percent* of its performance value over time and decreases the R-value of materials. **Because the foam faces are covered with impermeable steel skins, IPS panels will keep a constant R-value for many years.**
- The high R-values of IPS panels offer optimized energy performance and reduced energy consumption. This results in smaller emissions of greenhouse gases and reductions in energy costs. **IPS panels can provide more than 5 percent cost savings on your energy bill over traditional systems. Furthermore, the lower peak gains experienced when using IMPs can greatly reduce the required capacity of your HVAC system, resulting in up-front cost savings.**
- All of IPS's interior and exterior single-skin panels are comprised of 25 to 35 percent recycled content and are virtually 100 percent recyclable.
- IPS roof panels are also available in a wide variety of Cool Roof colors, providing energy savings and reducing a building's cooling loads. Cool metal roofing also helps mitigate urban heat islands (UHI).

**Based on ASHRAE 90.1 requirement (R=5.6 per inch) versus typical manufacturer's claim (R=7 per inch).*

PRODUCT INFORMATION

- IMPs consist of two single-skin panels and a foamed-in-place core.
- The foam core consists of non-chlorofluorocarbon (non-CFC) polyisocyanurate foam.
- The foam will not absorb water and is insect and rodent resistant.
- Panels interlock to exclude thermal breaks and provide superior resistance to air and moisture intrusion.
- All wall panels are attached to the structure of a building with concealed clips to eliminate thermal short circuits.



Urban Heat Islands

According to the U.S. Environmental Protection Agency (EPA), urban heat islands consist of urban and suburban temperatures that are 2°F to 10°F warmer than nearby rural areas due to the inability to cool because of the modification of the land surface by urban development and waste heat generated by energy usage.

LEED Advantages for IMPs

IMPs offer many LEED advantages for your building projects for the following credits and prerequisites assuming LEED-NC 2009:

- LEED low-slopes compliant colors for Credit SS 7.1 and 7.2 for Heat Island Effect
- LEED steep-slope compliant colors for Credit SS 7.1 and 7.2 for Heat Island Effect
- EA Prerequisite 2: Minimum Energy Performance (Outperforming ASHRAE 90.1 by 10%)
- EA Credit 1 : Optimize Energy Performance (Outperforming ASHRAE 90.1 by more than 10%)
- Credit MR 4.1 and 4.2: Recycled Content (See Recycled Content chart)

For detailed information about LEED credits associated with IPS panels, please visit our Web site at www.insulated-panels.com/LEED.

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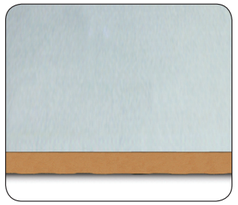
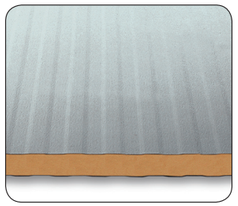
FWP
Wall Panel



The FWP wall panel employs a flat appearance providing a monolithic look that is great for high-profile architectural applications. The interior skin has a Mesa profile.

Product Specifications	
Gauges	Exterior: 22 Interior: 26
Surfaces	Exterior: Stucco-embossed Interior: Stucco-embossed
Widths	36”
Thicknesses	2”, 2½”, 3” and 4”
Lengths	Recommended maximum is 32’
Attachment	Concealed clips
R-Value	Maximum of R-29

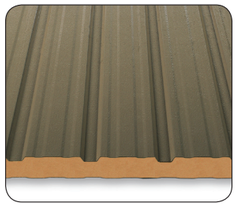
IPP II
Wall Panel



The IPP II wall panel is designed for interior wall partitions and exterior wall applications. The appealing flat exterior and interior skins have a Mesa profile. The versatility of this panel allows for a uniform appearance from outside to in and from room to room in partition applications.

Product Specifications	
Gauges	Exterior: 26; others available upon request Interior: 26
Surfaces	Exterior: Stucco-embossed Interior: Stucco-embossed
Widths	36” and 42”
Thicknesses	2”, 2½”, 3”, 4”, 5” and 6”
Lengths	Recommended maximum is 40’
Attachment	Concealed clips
R-Value	Maximum of R-42

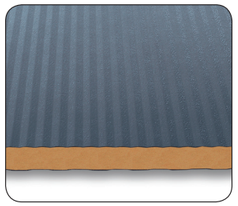
EWP II
Wall Panel



The traditional styling and distinct vertical lines of the EWP II is ideal for custom-designed or conventional building construction, especially commercial and industrial applications. The interior skin employs a Mesa profile.

Product Specifications	
Gauges	Exterior: 26; others available upon request Interior: 26
Surfaces	Exterior: Stucco-embossed Interior: Stucco-embossed
Widths	36”
Thicknesses	2”, 2½”, 3”, 4”, 5” and 6”
Lengths	Recommended maximum is 40’
Attachment	Concealed clips
R-Value	Maximum of R-42

ESP II
Wall Panel



The exterior skin of the ESP II is profiled with minor striations giving it a flat look and providing a linear appearance while blending with the panel side joints. This panel is an excellent alternative to typical flat wall panels. The interior skin has a Mesa profile.

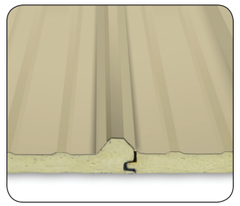
Product Specifications	
Gauges	Exterior: 24 and 22, Interior: 26
Surfaces	Exterior: Stucco-embossed, Interior: Stucco-embossed
Widths	36”
Thicknesses	2”, 2½”, 3”, 4”, 5” and 6”
Lengths	Recommended maximum is 32’
Attachment	Concealed clips
R-Value	Maximum of R-42

Sonora™
Wall Panel

Sonora’s exterior skin has a flat exterior profile with Aztec-embossed pattern resembling old-world hand plaster. The interior profile employs a Mesa profile.

Product Specifications	
Gauges	Exterior: 26; others available upon request Interior: 26
Surfaces	Exterior: Aztec-embossed Interior: Stucco-embossed
Widths	42”
Thicknesses	2”, 2½”, 3” and 4”
Lengths	Recommended maximum is 40’
Attachment	Concealed clips
R-Value	Maximum of R-28

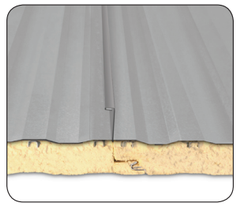
RWP II
Roof or Wall Panel



The versatility of the RWP II panel offers a multitude of design options. The RWP II can be utilized for roof or wall applications. The standard exterior skin is smooth but can be embossed if requested. The interior skin is roll-formed with our standard interior Mesa profile. The RWP II panel is the only IPS panel that utilizes a through-fastened attachment.

Product Specifications	
Gauges	Exterior: 26, 24 and 22 Interior: 26, 24 and 22
Surfaces	Exterior: Smooth or embossed Interior: Stucco-embossed
Widths	36”
Thicknesses	1½”, 2”, 2½”, 3”, 4”, 5” and 6”
Lengths	Recommended maximum is 35’
Attachment	Through fastened
R-Value	Maximum of R-42

IBL
Roof Panel



The exterior profile of the IBL roof panel has a 2”-high standing seam with the Mesa profile. The interior profile is also a Mesa pattern. The IBL panel is attached to structures with concealed clips to ensure maximum R-values.

Product Specifications	
Gauges	Exterior: 24 and 22 Interior: 26, 24 and 22
Surfaces	Exterior: Stucco-embossed Interior: Stucco-embossed
Widths	40”, 30” and 36” available upon request
Thicknesses	2”, 2½”, 3”, 4”, 5” and 6”
Lengths	Standard 8’ to 50’
Attachment	Concealed clips
R-Value	Maximum of R-42

Increase Your Building Performance

Let IPS help you enhance the performance of your buildings. Our panel offerings combined with the benefits of IMPs give you many different opportunities, including energy efficient designs, energy cost savings, staying ahead of the competition and much more.

Call us today at (800) 729-9324 or visit us on the Web at **www.insulated-panels.com.**

We look forward to working with you.

Support Information
IPS can furnish complete design information in the form of standard details and load tables. CSI format specifications and details are available on CD. Shop drawings can be prepared for individual projects to ensure compliance with IPS standards.

IPS reserves the right to substitute, delete and change gauges, widths, thicknesses, finishes and colors on its products and profiles at its discretion, at any time and without notices.

For more complete and the most current information on panel specifications, technical data, a detail library, color options and your nearest sales representative, visit IPS online at www.insulated-panels.com.

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ENERGY STAR PARTNER

9-09/M