ISOCINDU SETS NEW STANDARDS IN PIR TECHNOLOGY USING HONEYWELL SOLSTICE® LBA IN INSULATED METAL PANELS

Success Story

When metal panel manufacturer Isocindu wanted to improve the R-value of their advanced polyisocyanurate (PIR) foam core for thermal insulation at their plant in Guanajuato, Mexico, they collaborated with Honeywell's foam experts to utilize Solstice® Liquid Blowing Agent (LBA) to engineer a new insulated metal panel (IMP) called R-Plus.

BACKGROUND

Isocindu is a leading global manufacturer of insulating metal panels for walls and roofs. The company specializes in offering innovative solutions to improve the building industry's performance in terms of efficiency, sustainability and safety.

Isocindu is one of the main producers of insulating metal panels in Central and South America and it has now successfully expanded into the U.S. market.

CHALLENGE

The growing polyisocyanurate (PIR) foam insulation market demands efficient innovative solutions. To meet these demands, Isocindu has focused on providing to the challenge, endeavoring to provide a PIR insulated metal panel (IMP) with unparalleled insulation to differentiate their panels in the U.S. market.

The AIM Act of 2020 and the U.S. ratification of the Kigali Amendment to the Montreal Protocol in 2022, called for the gradual reduction in consumption and production of high global warming potential (GWP) hydrofluorocarbons (HFCs). These regulations initiated a critical transition away from HFCs, driving all industries to adopt environmentally friendly alternatives.

In the PIR IMP market, alternative solutions to meet the regulations on hydrocarbons failed to deliver the required differentiated thermal resistance (R-values).

With an effective U.S. ban on panel fabrication with high-GWP blowing agents and the need to improve insulation performance, Isocindu was keen to develop a better PIR foam core product with an improved R-value exclusively for the attractive U.S. market.

Securing the right ultra-low GWP blowing agent was critical to improve the R-value in their thermal insulation, while also meeting regulations.

Honeywell

SOLUTION

To address Isocindu's insulation capacity goals, they analyzed and tested **Solstice® LBA (HFO-1233zd (E))**, which proved to be the ideal blowing agent to start the development of their new R-Plus.

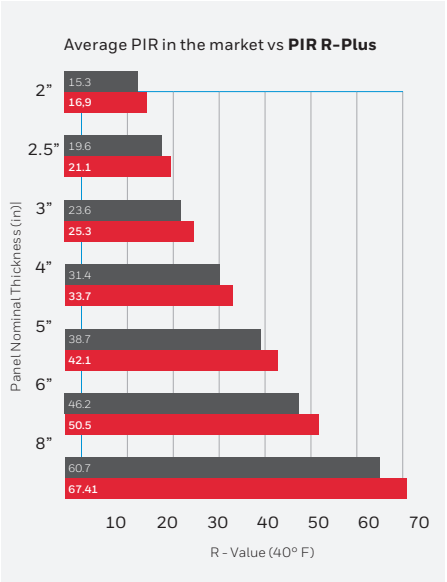
Honeywell Solstice® LBA is the latest advancement in blowing agent technology and, with a GWP of 1, and is a superior choice for use in best-in-class insulation foamed materials. It is non-flammable (ASTM E-681 and EU A11), non-ozone depleting and it has better thermal insulation performance than traditional hydrocarbons and HFC blowing agents.

Isocindu also leveraged **Honeywell's extensive foam and polymer industry expertise and support**, partnering with the team at Honeywell's state-of-the-art research and testing laboratory in Buffalo, New York to perform validation testing.

Source: isocindu.com

BENEFITS

Harnessing the power of Solstice® LBA, the R-Plus PIR solution, set a new standard for thermal performance by achieving a **higher R-value per inch** than standard PIR IMP using hydrocarbons.



Source: isocindu.com

Isocindu's R-Plus Enhanced PIR core offers thermal efficiency, durability and versatility. Key features and benefits include:

- **Up to 14% higher R-value**: Compared to the average polyisocyanurate boards in the market today.
- **Reduces Energy Cost**: Maximize thermal insulation and reduce cost to operate heating and cooling equipment
- **FM-certified**: Meets all global safety standards for the use in buildings.
- **Versatile application**: Can be used in a wide range of projects such as controlled temperature rooms, box-in-a-box insulation at production sites and refrigeration.

CUSTOMER FEEDBACK

"Isocindu's R-Plus panel is a testament to excellence and sustainability in PIR technology. With Solstice® LBA, we have introduced to the U.S. market a PIR panel with an unprecedented R-value. This would not have been accomplished with any other alternative. Solstice® LBA has not only allowed us to comply with environmental regulations but has also been key in offering a PIR panel that stands out for its performance and versatility at a competitive price.

Rodrigo Garnica,
Isocindu Marketing Coordinator

ABOUT HONEYWELL

Honeywell has invested more than one billion dollars in its Solstice® technology, having anticipated the need for lower global-warming-potential solutions more than a decade ago. Today, Honeywell is helping customers lower their greenhouse gas emissions and improve energy efficiency without sacrificing performance.

LEARN MORE

Greenhouse gas emissions are being reduced every day as more companies utilize Honeywell Solstice® materials. We estimate that Honeywell technologies for substitution of high global warming potential (GWP) fluorinated gases (F-gases) with lower GWP alternatives such as the Honeywell Solstice line of products based on hydrofluoro-olefins (HFOs) will have a cumulative impact of mitigating 600 million metric tons of CO_2e between 2023 and 2030. Contact us to learn more about the potential impact your company can make, too.

For more information

To learn more about Honeywell Solstice® LBA please visit: advancedmaterials.honeywell.com/us/en
or contact your Honeywell Account Manager.

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