

Sustainable cooling solutions: Optimum thermal insulation for cold rooms and modular cabinets by Boxcold, Italy

CATEGORY:

Commercial Refrigeration

THE CONTEXT:

Boxcold, Italy, is a leader in the production of commercial and industrial cold rooms for the manufacture, processing, and storage of food and non-food products. It has invested in an advanced rigid polyurethane foam system used in its growing range of cold rooms and modular cabinets. However, F-Gas Regulation (EU) No 517/2014 means that the foams that contain hydrofluorocarbons (HFCs) with GWP of 150 or more for foaming polyurethane (PU) sandwich panels cannot be used beyond 2023, so the company set about finding an alternative solution that would meet its performance criteria and also satisfy its commitment to sustainable manufacturing.

SUSTAINABLE COOLING SOLUTION:

- Boxcold worked closely with its PU system provider, Tagos, to find a suitable alternative to its original HFC-based blowing agent HFC 365mfc/227ea. Tagos is a consolidate system house in Italy and Honeywell has had a long history with Tagos in former HFC technology and now in transitioning to HFO.
- Honeywell's fourth generation HFO-based blowing agent, Solstice® Liquid Blowing Agent (LBA), was identified as a near drop-in replacement which exhibited ultra-low GWP and is non-ozone-depleting, while delivering the performance required. This positioned Solstice LBA as a long-term solution that did not require any additional capital investment in equipment.



BENEFITS:

- Optimum thermal performance while reducing the environmental impact, positioning the company as being sustainable and innovative.
- By having panels with optimum insulation, cold store owners and operators save energy and money
- Balance between cost and thermal conductivity, offering perfect flatness and PU panel finish
- Long-term solution through ultra-low GWP while delivering excellent process capabilities, narrow density variation and good adhesion
- Near drop-in replacement for the predecessor agent HFC 365mfc/227ea
- Total cost of ownership for the Solstice LBA system is comparable to the previous system

TOPIC:
Energy Efficiency

GENERAL INFORMATION

NAME OF THE COMPANY: Honeywell

CONTACT PERSON:
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HYPERLINK TO LEARN MORE ABOUT THE SUSTAINABLE COOLING SOLUTION:
https://www.fluorineproducts-honeywell.com/blowingagents/wp-content/uploads/2017/10/LAYOUT_CaseStudy_Boxcold_Solstice-LBA_EN_LR.pdf

Honeywell