RAVAGO CHOOSE IONEYAEL SOLSTICE® GBA BLOMMG AGENT FOR PIONEERING THERMAL INSULATION APPLICATION

Case Study

When Ravago, one of Europe's largest manufacturer of extruded polystyrene (XPS) insulation, required an ultra-low global-warming-potential (GWP) blowing agent for its cutting-edge Ravatherm XPS X ULTRA 300 SL thermal insulation, it chose Honeywell's Solstice[®] Gas Blowing Agent (GBA), or HFO-1234ze(E). Ravago's solution provides architects and specifiers with exceptionally thin XPS insulation for inverted flat roofs and other applications.

BACKGROUND

Conceived by Ravago's British subsidiary for the UK and Ireland markets, Ravatherm XPS X ULTRA 300 SL is the best thermally performing, flame retarded XPS thermal insulation board available today with a thirdparty certification, with declared lambda of 0.027 W/m·K for the thickness range of 70 to 205mm.

Developed for inverted flat roof, green and blue roof, roof terrace and car park deck applications where space constraints dictate exceptionally thin thermal insulation, Ravatherm XPS X ULTRA 300 SL addresses design and installation challenges faced by architects, contractors, building developers and homeowners. The intrinsically high performance of Ravatherm XPS X ULTRA 300 SL allows architects to achieve their desired U-value with the thinnest solutions using flame retarded XPS thermal insulation boards. All this with the reassurance of a third-party certified product.

A prerequisite for Ravatherm XPS X ULTRA 300 SL was that it incorporated insulation with the lowest possible GWP and thickness to address design challenges, particularly in renovation projects, and to help reduce a building's CO2 emissions over its lifetime in line with tightening regulations and Net Zero strategies. This triggered a search for a next generation blowing agent that would meet Ravago's criteria.

SOLUTION

During the evaluation process, Ravago discovered that Honeywell's Solstice[®] GBA offered GWP of 1, non-ODP, non-flammability and outstanding





insulation properties. This, together with characteristics of XPS such as inherent low water absorption and high compressive creep values, would enable Ravatherm XPS X ULTRA 300 SL to comply with prevailing energy efficiency schemes such as the Passivhaus standard, which provides guidance for the delivery of new and buildings optimized for a decarbonized grid and occupant health and wellbeing.

RESULTS

Honeywell Solstice® GBA provides superior insulation with the ultralow GWP that Ravago needs for its pioneering insulation, in turn delivering the environmental compliance today's users require.

In addition, Ravatherm XPS X ULTRA 300 SL can be applied in a single layer instead of multiple layers, as is common with standard XPS applications thus



saving installation time. Additionally, using less insulation saves material and labor costs and requires fewer deliveries to a building site, reducing the need for trucks and heavy machinery. Moreover, the ultra-thin profile of Ravatherm XPS X ULTRA 300 SL gives architects and designers the flexibility to reduce building thresholds, which can even enable the incorporation of an extra storey in some situations.

For more information visit

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