

# BLOWING AGENT GASES AND GLOBAL WARMING POTENTIAL IN RIGID FOAMS

## APPLICABLE TO ELEVATION® AND THERMALSTAR® PRODUCTS

Atlas Roofing Corporation is committed to ensuring we are using blowing agents with the lowest GWP potential available for each of our product technologies.

Blowing agents are gases used to create tiny cells in the manufacture of foam products. The gases can stay in the cell over long periods of time or can dissipate quickly. In general, the blowing agent gases are retained in polyisocyanurate, extruded polystyrene (XPS) and closed cell spray foams. The gases dissipate during or shortly after the manufacturing process for open cell spray foam and closed cell Expanded Polystyrene (EPS).

Regardless of being a retained blowing agent or a dissipated blowing agent, it is assumed the blowing agent eventually makes its way into the environment. The GWP of blowing agent gases is important as the higher the GWP, the more they contribute to climate change.

### SUMMARY OF RIGID INSULATION PRODUCTS AND THEIR BLOWING AGENT GWP

Company	Atlas	Atlas	Atlas	BASF	Kingspan	Owens Corning	Dupont
Insulation Brand	ThermalStar	EnergyShield	ACFoam	Styrodur	GreenGuard	Foamular	Styrofoam
Materials	White EPS	Polyiso	Polyiso	XPS	Green XPS	Pink XPS	Gray XPS
Location	North America	North America	North America	Europe	North America	North America	North America
Blowing Agent Gas	Pentane	Pentane	Pentane	CO <sub>2</sub> Since 1998	Blend	Blend	Blend
GWP <sup>1</sup>	<3 <sup>2</sup>	<3 <sup>2</sup>	<3 <sup>2</sup>	1 <sup>3</sup>	<50 <sup>4</sup>	<80 <sup>5</sup>	<150 <sup>6</sup>

<sup>1</sup>The unit for GWP is "kg CO<sub>2</sub> equivalent" for 100 years, with CO<sub>2</sub> having a GWP of 1

<sup>2</sup>World Meteorological Organization, "Scientific Assessment of Ozone depletion 2018", Annex A, Summary of Abundances, Lifetimes, ODPs, Res, GWPs, and

<sup>3</sup>E-CPB/FM 2205 BE Styrodur Sustainability Brochure

<sup>4</sup>Kingspan-green-guard-xps-ig-brochure-sell-sheet-siding-applications-en-us-ca-v1, 02/2024

<sup>5</sup>Foamular NGX Extruded Polystyrene Insulation Health Product Declaration V2.3 2023-11-10

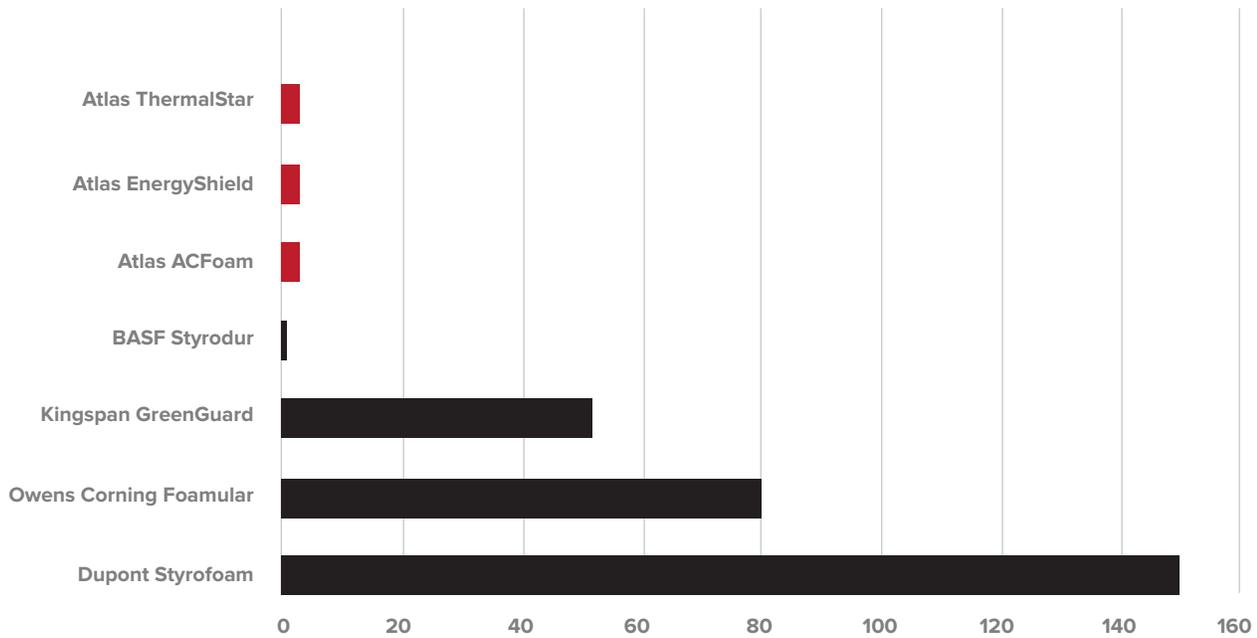
<sup>6</sup>"Beyond-blue-styrofoam-timeline-43-d101001-enna" compliance with Jan 1, 2025 EPA requirement of <150



EPS, Polyiso, and XPS can all be sourced with a low GWP (less than 10) blowing agents around the world. Unfortunately, a low GWP XPS product is not available in North America.

In North America, the use of Atlas rigid foams provides a significant environmental benefit over XPS where higher GWP blowing agents are used.

## GWP BLOWING AGENTS



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