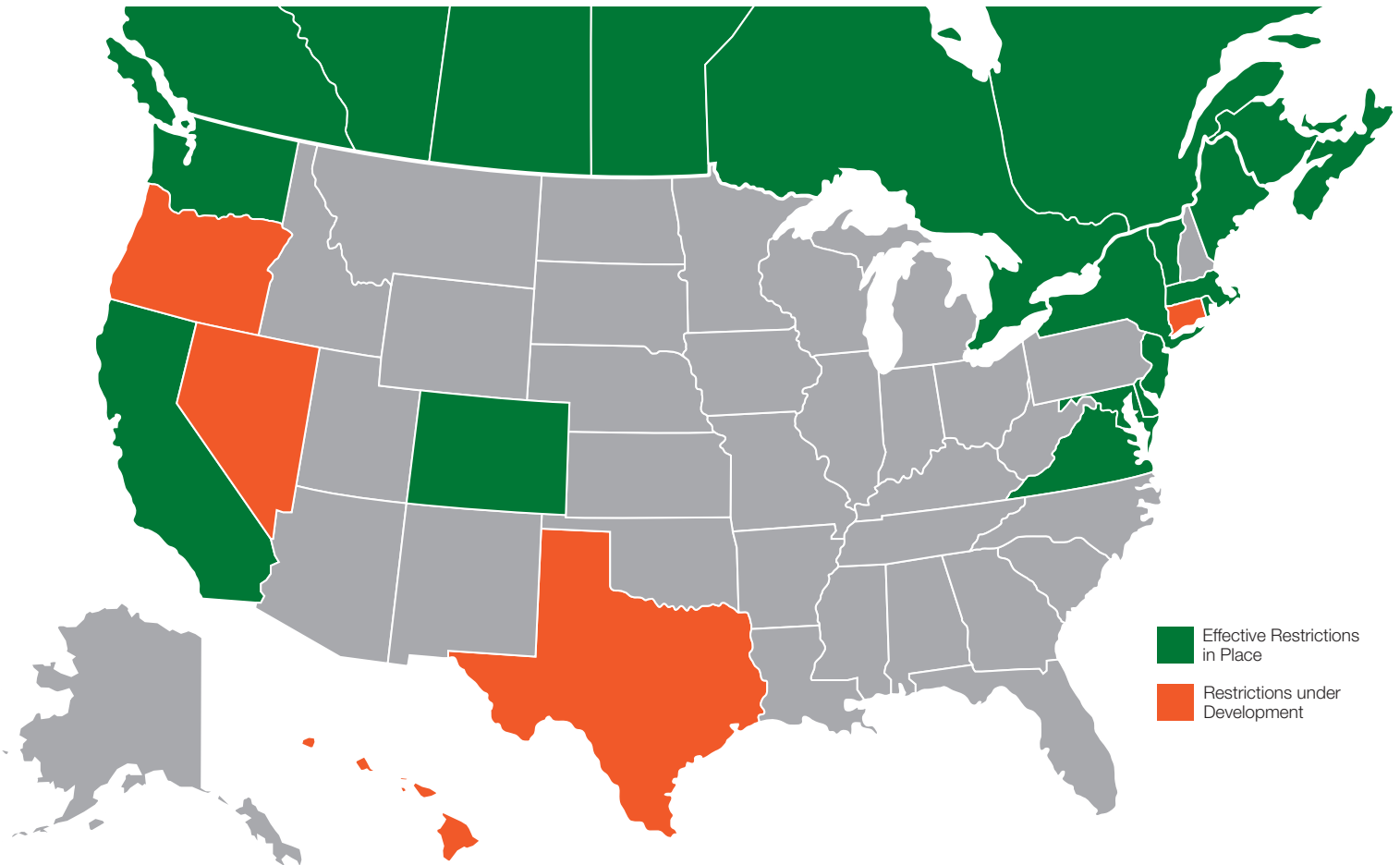


It's time to make the switch to HFO

Newer spray foams leverage Hydrofluoroolefins (HFO) or unsaturated organic compounds composed of hydrogen, fluorine and carbon, in their next generation and environmentally friendly blowing agent technology. They offer zero ozone depleting potential and move the global warming potential of spray foams from a factor of 99 to less than 1.

The push toward HFO-based spray foam blowing agent technology is the latest step in an ongoing evolution to phase out the use of chemicals known to harm the ozone and climate.

HFC Phaseout



For up-to-date information regarding HFC phaseout, visit polyurethane.americanchemistry.com/State-Phase-Down-of-HFCs

HBS DOING ITS PART



Recycling

- HBS recycles more than 250,000,000 plastic bottles annually
- Many HBS spray foams contain up to 25% recycled and renewable materials
- On average, up to 4,000 recycled plastic bottles go into each home insulated with spray foam.

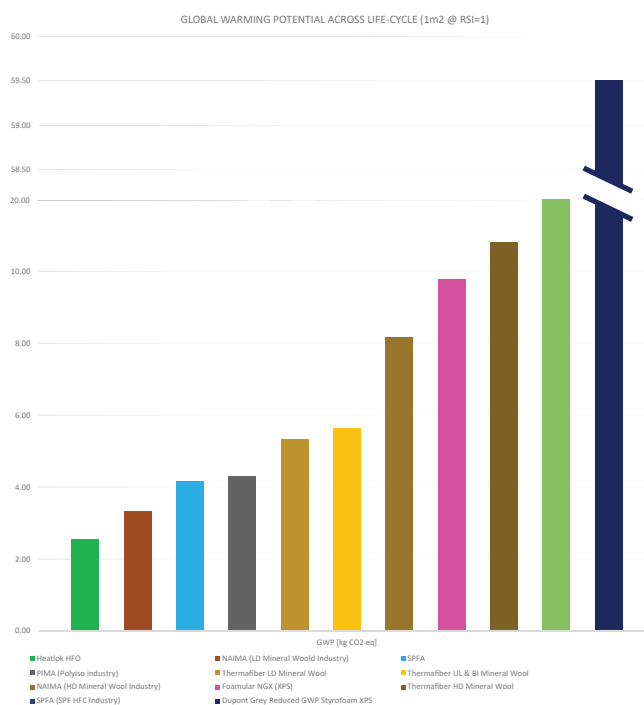


HFO Blowing Agent

- Since 2017 HBS has been at the forefront of developing new products, including the new HFO blowing agent.
- HBS spray foam products have zero ozone depletion impact
- Many HBS spray foam products have a reduced global warming impact of < 1, compared to HFC products that are at 900

Environmental Product Declaration

- Heatlok HFO product line: 1st SPF products with a product-specific Type III EPD, third-party made and externally verified by UL.
- Heatlok HFO product line showcases significantly lower GWP compared to Other Insulation Types
- 39% lower than the spray foam industry average (SPFA);
 - up to 96% lower than HFO extruded polystyrene;
 - 77% lower than heavy density mineral wool;
 - 52% lower than light density mineral wool;
 - 55% lower than unbonded loosefill & blown-in mineral wool
- All-in-one product: Replacing whole-assembly insulations (exterior mineral wool or polystyrene board stock with batt insulation), and their required full-surface membranes and vapor barriers with the single Heatlok HFO product, can dramatically reduce an assembly's GWP by up to 45%.
- HBS' proprietary polyol made of recycled content & the new-generation Solstice HFO blowing agent with a GWP=1 is responsible for the product's significant reduction in embodied carbon and GWP.
- Reduced carbon emissions by using SPF instead of fiberglass in a home equates to removing 14-23 automobiles from the road for a year.¹
- Constant audits and process refinements: all plants are required to identify, quantify, and minimize energy, water, air emissions and waste consumption from operations, control and report releases and spills through the EHS and Process Safety system.



Generation	Examples	ODP (1.0 = Max) GWP (CO ₂ = 1.0)
First Gen (1950s - 1980s)	CFC	ODP = 1.0 GWP = 4,750
Second Gen (1980s - 1990s)	HCFC	ODP = 0.12 GWP = 725.0
Third Gen (2000 - 2019)	HFC	ODP = 0.0 GWP = 1,030
Fourth Gen (2020 -)	HFO	ODP = 0.0 GWP = 1.0

Indoor Air Quality, Greenguard Gold and Radon

- Many HBS spray foam products are Greenguard Gold certified regarding indoor air quality
- Because of their air barrier properties, HBS spray foam products help reduce pollutants and allergens infiltrating buildings
- Closed-cell spray foam products under-slab are tested for radon diffusion and perform much better than traditional solutions in preventing radon infiltration into buildings.

¹ Spray Polyurethane Foam Alliance, SPF Residential Energy Modeling Analysis, February 2021, <https://www.sprayfoam.org/files/SPFA%20LCA%20-%20Residential%20Energy%20Modeling%20Analysis%20Feb%202021.pdf>