

HFC-FREE SPRAY FOAM INSULATION

The U.S. Environmental Protection Agency's (EPA) Significant New Alternatives Policy (SNAP) program continually evaluates new and more environmentally responsible substitute products for use in several industrial sectors, including foam blowing agents. The introduction of commercially viable fourth-generation – hydrofluoroolefin (HFO) – foam blowing agents with low global warming potential (GWP) led to SNAP Rules 20 and 21, which prohibit the use of certain hydrofluorocarbon (HFC) blowing agents in spray polyurethane foam.

However, the U.S. Court of Appeals – D.C. Circuit partially vacated the SNAP rulings in 2019, preventing the establishment of a federal requirement to transition to low-GWP blowing agents in the SPF industry. Individual states are now leading the transition and many states have enacted SNAP-like legislation prohibiting the use of HFCs in the foam sector. Many more states currently have active legislation.

Carlisle Spray Foam Insulation's SealTite™ PRO One Zero is formulated with an ultra-low global warming potential blowing agent based on HFO technology. This product offers HFC-free states a competitive and compliant high-performance spray foam insulation.

THE BENEFITS OF HFO PRODUCTS OVER HFC PRODUCTS



THE ENVIRONMENT

Global warming potential (GWP) is the heat absorbed by any greenhouse gas in the atmosphere, as a multiple of the heat that would be absorbed by the same mass of carbon dioxide (CO₂). Blowing agent technology has evolved over the last few decades, greatly reducing environmental impact. Fourth-generation blowing agents based on HFO technology have reduced the GWP to be equivalent with CO₂.

BLOWING AGENT	GWP
CFC-12 (Freon 12)	10,900
HCFC-141b	725
HFC-365mfc	794
HFC-245fa	1,030
HFOs	1
CO ₂	1



THE APPLICATOR

SealTite PRO One Zero may need to be sprayed 5°F-6°F hotter than the HFC-containing SealTite PRO Closed Cell to get the same reactivity profile. When dialing in SealTite PRO One Zero, targeting a ½- to 1-second brown time ensures an efficient use of foam.

A test spray dot onto the substrate where the chemical hits as a white foam indicates that the temperature settings may be too hot, which causes blowing agent to escape into the air and reduces expected yield. In this situation, decrease your temperature in 2°F-3°F increments until you achieve a consistent ½- to 1-second brown time.

If the chemical hits as a brown and runny liquid before turning into white foam, temperatures may be too cold. Increase your temperature in 2°F-3°F increments until you achieve a consistent ½- to 1-second brown time. Always consult the SealTite PRO One Zero Application Guide prior to installation.



HFC TO HFO TRANSITION GUIDE



THE INSULATION CONTRACTOR

Spray Foam insulation products formulated with HFOs outperform HFC formulations. HFO-containing products like SealTite PRO One Zero offer improvements to yield and jobsite productivity. HFO products can be installed at greater lift thicknesses and may eliminate the need for foam to cool between passes, allowing applicators to achieve up to an R-38 in one application.

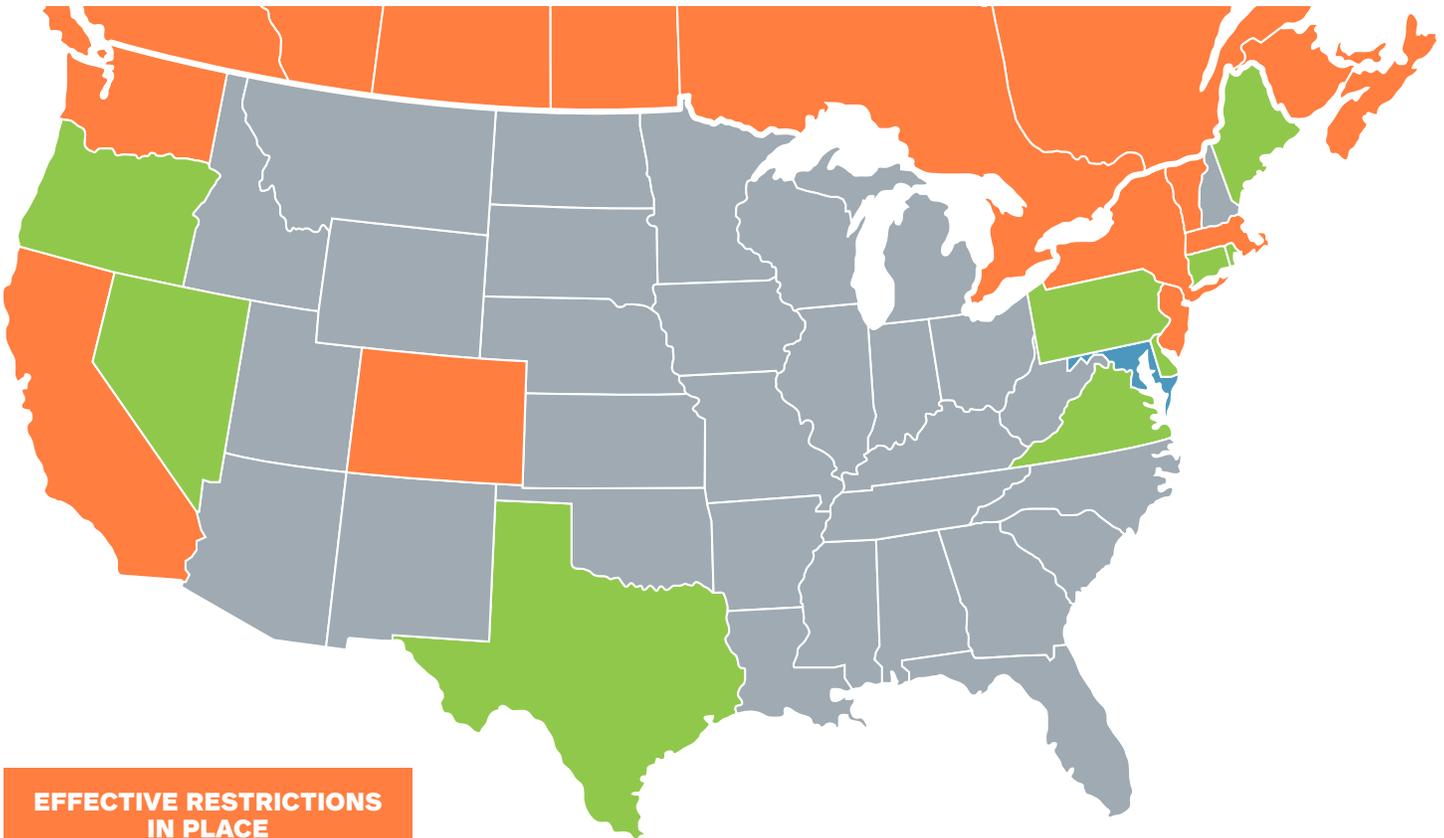


THE ARCHITECT

SealTite PRO One Zero was specifically formulated with an HFO blowing agent to be an identical equivalent to SealTite PRO Closed Cell. SealTite PRO One Zero can be specified interchangeably with SealTite PRO Closed Cell in all of CSFI's NFPA 285 compliant wall designs and UL Listed fire rated assemblies. SealTite PRO One Zero is available for installation and can be included in specifications immediately in all states.

STATE SPECIFIC PHASE-DOWN OF HFCS

This map summarizes the position of each state in the phase-down of HFCs as of January 1, 2021.



**EFFECTIVE RESTRICTIONS
IN PLACE**

**APPROVED RESTRICTIONS,
NOT YET EFFECTIVE**

**RESTRICTIONS UNDER
DEVELOPMENT**

For all states with effective HFC restrictions, all material manufactured prior to the prohibition date can remain in commerce until sold or used.



100 Enterprise Drive • Cartersville, GA 30120 • 844.922.2355

www.carlislefsi.com

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