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WALLTITE®

WALLTITE® Series

Low-GWP Spray Foam Insulations

Foam plastic insulations, including closed-cell-spray polyurethane foams (ccSPF), are undergoing blowing agent changes as regulatory requirements in the USA are phasing out currently used materials. This change incorporates blowing agents with lower Global Warming Potential, including those most common in spray foam systems, hydrofluoroolefin (HFO). These blowing agent changes are being implemented to comply with varying state legislation phasing out the use of hydrofluorocarbon (HFC) blowing agents currently used.

WALLTITE® Series closed-cell spray polyurethane foam insulations and air barrier systems are formulated by BASF with a low global warming potential (low-GWP) HFO blowing agent, which is compliant with global HFC phase-out protocols and regulations in the US market including the AIM Act passed in late 2020. Through the AIM Act, the US Environmental Protection Agency (EPA) is regulating the nationwide use of HFC blowing agents (in all remaining US states who do not already have their own restrictions of use), starting with phase-downs in 2024 and prohibitions in 2025.

BLOWING AGENT PHASE OUT

What blowing agents are being phased out throughout the United States, and why?

Hydrofluorocarbons (HFCs) are being phased out of numerous uses, including foam plastic insulations as well as other areas where HFC are used (e.g. refrigerators, automobiles, etc). HFCs are a potent greenhouse gas and individual countries and states are focused on reducing their potential for global warming. See right column for various states and dates where this phase-out has been implemented.

What is Global Warming Potential defined as?

Global warming potential (GWP) defines the potency of the blowing agent as a greenhouse gas – GWP is a value relative to CO_2, which is defined as having a value of 1.0.

How do foams using hydrofluoroolefin (HFO) based blowing agents compare in terms of GWP?

These new HFO blowing agents have a GWP around one, compared to a much higher GWP for HFC blowing agents still being used in some foam systems.

When and where is the phase out?

The following states have implemented prohibition of HFCs in all foam plastics including spray foam, as noted:

California – Prohibited effective January 1, 2020
Colorado – Prohibited effective January 1, 2021
Delaware – Prohibited effective September 1, 2021
Washington – Prohibited effective January 1, 2020
Maine – Prohibited effective January 1, 2022
Maryland – Prohibited for SPF effective July 1, 2021
Massachusetts – Prohibited effective January 1, 2021
New Jersey – Prohibited effective July 1, 2020
New York – Prohibited effective January 1, 2021
Rhode Island – Prohibited effective January 1, 2022
Vermont – Prohibited effective January 1, 2021
Virginia – Prohibited effective January 1, 2022

Additional states had restrictions in development but have not finalized or moved to legislation. The US EPA's implementation of the HFC restrictions through AIM Act prohibits the spray foam industry (along with any foam plastics) from producing materials using HFC blowing agents as of January 1st, 2025.

For all states that have announced prohibition of HFC spray foam products, all material manufactured prior to the prohibition date can remain in commerce until sold or used.

Source: ACC HFC Regulation tracking

SPECIFICATIONS & DESIGN QUESTIONS

What can the design community do to adapt to these new regulations for foamed plastics?

The design community should review the technical data sheets of foam plastic insulations they are intending to use. In those states where prohibition of HFC materials is active, ask your BASF representative for submittal details for HFO-based spray foam chemistries.

Should I start to specify the HFO spray foams now?

YES, in these states and other applications where low-GWP is desired, WALLTITE HFO Series materials are available for use in these regions and applications. In preparation of these changes, next generation HFO-based WALLTITE spray foams were developed for this market need. These materials are available for installation and can be included in specifications immediately.

How do I specify the HFO-based spray foams to ensure they are used?

BASF has an updated guide specification that can be used to begin specifying HFO-based spray foams, such as WALLTITE LWP or WALLTITE Max.

APPLICATION & PRODUCT QUESTIONS

Are there differences in the product performance from HFO to HFC-based formulations?

As a general rule, most HFO spray foam systems have similar physical properties such as density range, thermal performance, and vapor/air permeability, as the conventional HFC materials.

Are the HFO-based spray foams applied differently or have other installation differences?

Overall, the primary guidelines for the WALLTITE HFO Series application remains the same as all BASF closed-cell spray foams. No difference in installation requirements exist for the BASF HFO formulations at this time. Proper flushing when transitioning between HFO and HFC or open-cell spray foams will ensure proper processing.

Some HFO formulations are specially designed as high-lift or single pass applications - contact a BASF representative for guidance on which WALLTITE Series materials may fit the needs of your project.

For technical questions or support,
please contact 800-706-0712, option 2.

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