



UNDERSTANDING THE **A2L SWITCH**

WALK-IN COOLERS & FREEZERS

A guide to navigating the transition to low-GWP refrigerants for commercial refrigeration systems.

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Introduction



By January 1, 2026, new federal regulations will require all commercial refrigeration systems to use low-GWP refrigerants. This change, driven by the AIM Act, is part of a broader effort to reduce the environmental impact of hydrofluorocarbons (HFCs).

For many in the foodservice and cold storage industries, this means adapting to a new class of refrigerants known as A2Ls.

At Thermo-Kool, we're dedicated to helping our customers stay ahead of the mandate. This guide breaks down what A2Ls are, why the shift matters, and how Thermo-Kool is uniquely equipped to make the change as smooth as possible.

The 2026 Compliance Deadline

The Environmental Protection Agency (EPA) has set a firm deadline: by January 1, 2026, all new commercial refrigeration systems must utilize low-GWP refrigerants.

The installation date—not the purchase date—is what matters. Systems must be installed, charged, and operational by the deadline.

Failing to meet this requirement could result in fines, restrictions on system use, or even forced shutdowns of non-compliant equipment. Although enforcement can vary, the risks make it clear; proactive planning is critical to staying compliant.



Thermo-Kool is here to ensure that every system we deliver meets or exceeds compliance standards before it leaves our factory.

What Makes A2L Different?

A2L refrigerants are classified as “mildly flammable” under ASHRAE safety standards, unlike their A1 counterparts (such as R-448A), which are nonflammable. This classification requires extra attention to safety, but A2Ls offer a key environmental advantage: significantly lower Global Warming Potential (GWP).

Systems using A2L refrigerants operate at slightly different pressures and require ventilation, leak detection, and compliance with updated building codes. However, they deliver comparable cooling performance to traditional HFCs while helping meet environmental goals and new federal regulations.

The Thermo-Kool Difference

Thermo-Kool will be transitioning to **R-454A** as our standard low-GWP refrigerant. R-454A offers a strong balance of energy efficiency and performance, making it ideal for commercial refrigeration applications like walk-in coolers and freezers. This refrigerant has a significantly lower GWP than R-448A, while still delivering the reliability customers expect from Thermo-Kool walk-ins.

Highly Flammable

Flammable

Lower Flammable

No Flame Propagation



A3

Propane

B3

No Refrigerant

A2

R152A

B2

R1132(E)

A2L

R454A

B2L

Ammonia

A1

R448A

B1

R123

Lower Toxicity

Increased Toxicity

Flammability Chart



Safe Design with Thermo-Kool

Thermo-Kool works closely with trusted refrigeration professionals to ensure that A2L-compatible refrigeration units aren't just ready for the 2026 deadline, but that they are ready *now*.

By collaborating with the experts in refrigeration systems and staying ahead of evolving safety standards, we help deliver solutions that meet the latest A2L requirements, including ventilation, leak detection, and system compatibility with low-GWP refrigerants.



Always Install Ready

All Thermo-Kool walk-ins are preassembled in our factory for quality assurance and faster installation on the job site. When you partner with Thermo-Kool, you're getting a walk-in that is streamlined for A2L compliance and is built with 65 years of precision to give you peace of mind.

Retrofit vs Replace



While it may be tempting to retrofit older systems to accept A2L refrigerants, federal guidelines prohibit it. A2Ls are not approved for use in retrofitted systems due to pressure differences and flammability risks.

Thermo-Kool recommends full replacement using new A2L-compatible equipment. This ensures compliance, protects your investment, and keeps your facility ready for what's next.

Cost vs. Efficiency: The ROI of A2L Systems

Switching to an A2L-compliant system comes with added safety components—like upgraded leak detection and ventilation—which can increase upfront costs by 15–40% compared to legacy HFC-based systems.

But the investment pays off. A2L-compatible systems can deliver up to 10% greater energy efficiency, reducing long-term utility bills and offering an excellent return on investment over time.

Plus, as energy-efficiency regulations evolve, systems that exceed baseline performance may qualify for utility rebates and incentive programs, giving you even more financial advantage.



With Thermo-Kool, you're not only staying compliant, you're staying ahead.

Planning Ahead

Supply Chain & Installation Prep

As the 2026 deadline approaches, demand for A2L-compatible systems and parts will only increase. That's why planning now is critical.

Here's how to stay ahead:



Lock in your lead time early. Thermo-Kool can preassemble and deliver your A2L-ready walk-in in as little as 4 weeks.



Coordinate with local inspectors. Building codes and permitting requirements may vary based on region. Early communication helps avoid approval delays.



Design with compliance in mind. From layout to ventilation to maintenance access, A2Ls affect how your refrigeration is designed and installed.

Thermo-Kool's experts are here to help you build it right from the start.

Quick Look: A2L Refrigerants Pros & Cons

Pros

- ❄️ Significantly lower Global Warming Potential (GWP)
- ❄️ Comparable cooling performance to traditional refrigerants
- ❄️ Up to 10% greater energy efficiency
- ❄️ Eligible for energy-saving incentives in some regions
- ❄️ Helps meet 2026 EPA compliance deadlines

Cons

- ❄️ Classified as mildly flammable (A2L = "mild risk")
- ❄️ Requires enhanced ventilation and leak detection systems
- ❄️ Cannot be used in retrofitted systems; new install required
- ❄️ Slightly higher upfront cost
- ❄️ May require insurance review and technician training

Are You Ready?

Your A2L Transition Checklist

- ☐ Understand the 2026 compliance deadline
- ☐ Know that retrofitting older systems isn't allowed
- ☐ Choose an A2L-compatible system designed to meet ASHRAE and UL safety standards
- ☐ Verify technician certifications for A2L refrigerant handling
- ☐ Communicate with your insurance provider about new risk management policies
- ☐ Design facilities to accommodate A2L ventilation and leak detection
- ☐ Partner with a manufacturer who understands A2L inside and out (hey, that's us)


Let's Build the Future of Cold Storage Together

Thermo-Kool always strives to built for what comes next. The A2L switch is no exception.

Whether you're planning a new facility, replacing an aging system, or simply preparing for what's ahead, our team is ready to help you make the transition with confidence.



Scan the QR code for more info on A2L refrigerant.

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