HVAC Tape Training Flyer

This week is a follow up on the Fiberglass Duct Insulation flyer detailing different types of HVAC Tapes. This flyer will serve to give you a basic understanding on the different types and terms of HVAC tape.

Full System Closure:

Full system closure means no leaks. An installer must identify all the spots in a system where air leaks could occur. For example, all connection points between flex duct or the overlap point where duct wrap comes together. Once these areas have been identified, the proper tape must be chosen to permanently seal the system.

5 Main Things to Consider:

1. Application Technique:

Each tape has a proper technique to be used during application — following these techniques allows the tape to work exactly how it was designed. Keep in mind that HVAC tapes are *pressure-sensitive*. In order to properly form the bond that is needed for a permanent seal, an appropriate amount of pressure must be applied — the optimal tool to provide this force is a squeegee. Not using the prescribed installation technique can cause improper adhesion of the tape, and ultimately failure.



2. Code Compliance:

UL (Underwriters Laboratories) provides safety-related certification, validation, testing, inspection, auditing,

advising and training services to a wide range of industries, one being tapes. UL listings are critical for certain applications. This compliance ensures the tape has the proper adhesion and exceptional shear strength to stay in place effectively for the life of the HVAC system. That listing could stand between a system passing or failing an inspection.

In order to gain a UL listing for a tape, it must pass a series of rigorous tests – evaluating qualities such as adhesion level, shear strength and tensile strength, as well as burn, mold and humidity



resistance. There are different levels of UL certification tapes can have. Basically 181 ratings pertain to sealing strength and a 723 rating is a burn rating for its ability to hold smoke and slow the spread of fire.

3. Application Conditions:

Temperature conditions can also affect the performance of the tape, especially colder situations. Durability and resilience to withstand diverse weather conditions are critical. The risk for tape failure is increased when work is done in low temperatures with tapes that are not cold temperature approved. The AF Series are cold rated.

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4. Strength, Adhesion, and Tact:

Tapes vary in strength, adhesive type and initial tack. Pay attention to tensile strength to ensure you select the right tape, particularly for those applications that require maximumstrength performance, like sealing, seaming and joining scrimreinforced pipe and duct insulation.

Tapes are also available with rubber-based and acrylic adhesives, so be sure to choose the one that matches your needs. For example, rubber-based adhesives may not perform as well in cold temperatures as their acrylic counterparts.



5. LEED Certification:

LEED, or *Leadership in Energy and Environmental Design*, is a certification program focused primarily on new, commercial-building projects and based upon a points system. The more points you earn, the higher your rating. Today, many municipal, building codes require building materials that qualify for LEED. Oftentimes, specifying engineers and contractors who know which materials qualify for – or contribute to – LEED points, get the job.

Even if the job doesn't specify LEED materials, it should be a consideration as LEED-certified products, like HVAC tapes, can impact rebates and tax incentives for contractors. Shurtape tapes that are marked as Green Point Products deliver the quality results you demand and contribute to LEED certification points when combined with other eligible building materials.





What type of tape should you use?

Many customers have specific preferences for which tapes they use. Below is a basic outline of what to suggest if a customer doesn't know which tape they want. We suggest UL rated tape over non-rated tape whenever possible.

Duct Board:

AF9752 or AF9753 (Cold Rated, Non-UL, Green Point) AF100 (Cold Rated/UL 181 Rated/Green Point)

Duct Wrap:

AF984 (Cold Rated, Burn rated (UL723), UL181 Rated, Green Point)

Flex Duct:

PC618 (Burn Rated (UL723), Non-181, Green Point, Min Temp if install 50F) Flame Rate: 15 Smoke Rate: 25 PC857 (Burn Rated (UL723), Non-181, Green Point, Min Temp if install 50F) Flame Rate: 5 Smoke Rate: 10 DC181 (Burn Rated (UL723), UL 181 Rated, Green Point, Min Temp of install -10F) Flame Rate: 25 Smoke Rate: 50

Next Steps and a Couple Questions:

The first next step is to learn more. Below is a video detailing the AF100 tape. https://www.youtube.com/watch?v=WKzNJ8JL-6Y

TRUE or FALSE: HVAC Tapes are non-pressure sensitive tapes meaning they seal with very little pressure like a glue.

TRUE or FALSE: Rubber tapes typically work better in colder temperatures.





System is susceptible to air leaks and failure



Indoor air quality concerns due to contaminants



System fails the inspection



Lifespan of system is shortened



Costly electric bills



Call-backs to fix issues