

Listed & Labeled

The 2018 edition of the International Mechanical Code® added new language and requirements for duct insulation coverings (wrap) and linings (liner), including adhesives, contained within plenums.

Within Section 604.3 Insulation Coverings and Linings, the new requirement states that duct insulation and adhesives must be “listed and labeled.” What exactly does this mean?

Duct Insulation must pass either ASTM E84 or UL723 25/50 flame spread (< 25) and smoke-developed (< 50) indexes. This requirement is not new.

What’s new is that duct insulation manufacturers must engage with an OSHA-approved nationally recognized testing laboratory (NRTL) for initial and periodic (quarterly) testing/surveillance to ensure that their duct insulation passes ASTM E84 or UL723 perpetually.


Once a duct insulation and adhesive passes 25/50, the manufacturer’s products are publicly listed on the NRTL’s online product directory. This is the definition of “listed”. Below is a screenshot of AEROFLEX Breathe-EZ™ Duct Insulation listed with Southwest Research Institute.

Search Results

| Product | Category | Client (Manufacturer) |
|---|------------------------|--------------------------|
| AEROFLEX Breathe-EZ™ Duct Insulation | Insulation Products | Aeroflex USA, Inc. |
| AEROFLEX Breathe-EZ™ PSA Duct Insulation | Insulation Products | Aeroflex USA, Inc. |
| REF 1520™ Adhesive | Insulation Products | Aeroflex USA, Inc. |

Last Update to SwRI Directory of Listed Products on Tuesday,
 May 28, 2024

The NRTL’s logo and approved language must be labeled on the approved duct insulation and adhesive packaging (cartons). This is what is meant by “labeled”. Below is an example of a NRTL approval embedded into a product label. However, the label can be placed separately per the NRTL.

| | | | | |
|---|--------------------------------|--|-------------------------|---|
| SwRI | | | | |
| <p>LISTED BY: Southwest Research Institute® San Antonio, Texas</p> <p>AEROFLEX Breathe-EZ™ Duct Insulation</p> <p>Duct insulation sheets and rolls Thickness: 1-in. to 2-in Nominal density: 3.9 lb/ft³ REF 1520™ Adhesive</p> <p>Manufactured by Aeroflex USA, Inc. in Sweetwater, TN</p> <p>Tested in accordance with ASTM E 84-20 Flame Spread Index < 25 Smoke Developed Index < 50</p> <p>SwRI ID No. 22236-01-01</p> | | | | |
| AEROFLEX BREATHE-EZ™ DUCT INSULATION STANDARD S2S | | | | |
| INSULATION THICKNESS 1" | INSULATION WIDTH 60" | INSULATION LENGTH 50' | R-VALUE R 4.2 |  |
| SF / CTN. 250 | LISTED & LABELED | ASTM C1534 TYPE I ASTM C534 TYPE II ASTM E84 25/50 | EZ-106050 | |
| <p><small>In as much as Aeroflex USA, Inc. has no control over installation design, installation workmanship, accessory materials, or conditions or application, Aeroflex USA, Inc. does not warrant the performance or results of any installation containing their products. This warranty disclaimer includes all implied warranties, including the warranties of merchantability and fitness for a particular purpose. Please see the Aeroflex Limited Warranty for complete details of what is warranted and the extent of the Limited Warranty.</small></p> | | | | |

Additionally, ASTM C1534 “Standard Specification for Flexible Polymeric Foam Sheet Insulation Used as a Thermal and Sound Absorbing Liner for Duct Systems” maintains specific requirements for elastomeric duct liner.

To meet the above industry requirements, Aeroflex USA offers AEROFLEX Breathe-EZ™ EPDM Duct Insulation so building owners, consulting mechanical engineers, design-build mechanical contractors, and acoustic consultants can confidently specify a fiber-free duct liner or wrap to meet the owner’s project requirements.

AEROFLEX Breathe-EZ™ EPDM Duct Insulation is listed and labeled and complies with ASTM C1534

To learn more, click [here](#).

Sources:

https://codes.iccsafe.org/content/IMC2024V1.0/chapter-6-duct-systems#IMC2024V1.0_Ch06_Sec604

<https://www.astm.org/c1534-22.html>

<https://www2.swri.org/www2/listprod/construc.asp>