

The Critical Role of Special Purpose Contact Adhesives

Adhesives specified to install flexible closed cell elastomeric foam insulation on HVAC, refrigeration, and plumbing piping, duct and equipment installations play an integral role in the success and longevity of insulation systems.

Manufacturers offer “wet-applied” contact adhesives that are specially formulated to bond the adjoining seams of closed cell tube, sheet & roll insulation. Each adhesive has a specific “tack” or open time to allow the solvents to “flash off” prior to adjoining two glued seams. It’s advisable to also note the high and low service temperatures as well. Complete coverage and adhesion, once the proper tack time has been achieved, can ensure a successful installation for the life of the mechanical system or project.

The most common source of insulation failure on mechanical systems for all insulation types is related to corrosion under insulation (CUI). When gaps at the seams or tears are present in the insulation, ambient moisture and/or condensation on the insulation surface can penetrate through to the substrate such as a pipe or equipment. Proper adhesive seals (100% coverage and adhesion) at insulation seams will prevent water vapor from penetrating insulation seams and the potential for CUI. Applying the manufacturer’s tape over glued seams provides an additional level of protection.

Wet-applied special purpose contact adhesives are available in both solvent-based formulas, which offer higher VOC emissions and content but aggressive tack times, and low-VOC formulas with longer tack times but lower VOC emissions and content. Low-VOC special purpose contact adhesives can meet LEED® requirements for low-emitting materials provided that manufacturers can support their claims with third-party test reports for emissions (California Specification 01350) and content (SCAQMD Rule 1168).

To address the market’s need for an alternative to wet-applied adhesives, Aeroflex USA offers a “peel and seal” option called Cel-Link II®. Cel-Link II is a fiber-reinforced glueless transverse seam seal with high-strength pressure-sensitive adhesive on each side that quickly bonds adjoining AEROFLEX® EPDM pipe insulation and eliminates coverage and tack time variables. Cel-Link II is Indoor Advantage™ Gold Certified for low chemical emissions.

To learn more about AEROFLEX® Adhesives and Cel-Link II®, please [click here](#).