

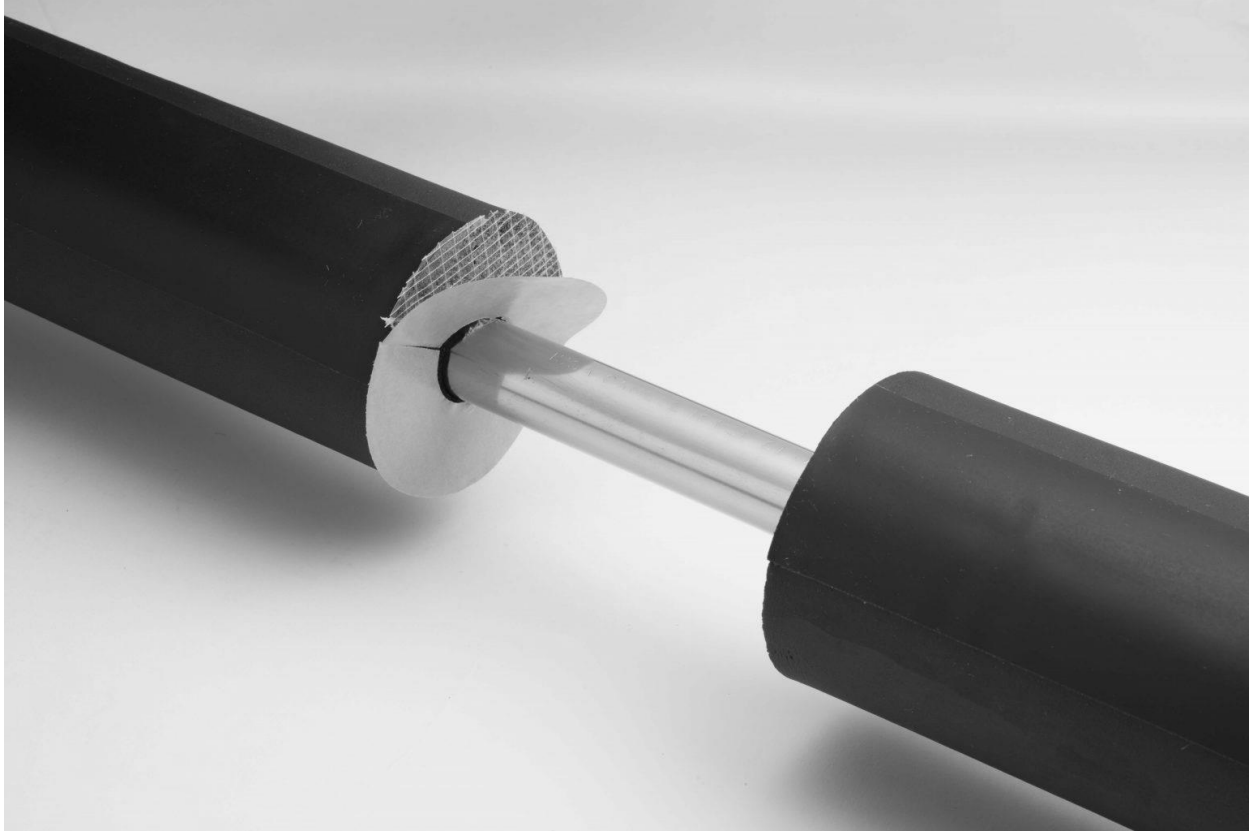
The Critical Role of Special Purpose Contact Adhesives in Mechanical Insulation Applications

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

Manufacturers offer “wet-applied” contact adhesives that are specially formulated to bond adjoining seams of closed-cell tube and sheet & roll insulation. Each adhesive has a specific “tack” or “open” time to allow the solvents to “flash off” prior to adjoining two glued surfaces. Observing these tack times prior to adhesion will ensure reliable, long lasting bonds that should last the life of the mechanical system. Contact adhesives also have specific high and low service temperatures and should be selected accordingly to meet the operating conditions of a given application.

The most common source of insulation failure on mechanical systems for all insulation types is 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 pipe or equipment. Proper adhesive seals (100% coverage and adhesion) at the 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 solvent-based formulas which have higher VOC emissions and content but faster tack times, and low-VOC formulas with lower VOC emissions and content but longer tack times. 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).



Cel-Link II™ “peel and seal” option for joining sections of Aerocel Stay-Seal with Protape pipe insulation.

To address the market’s need for an *alternative* to wet-applied adhesives, Aeroflex USA also offers a “peel and seal” option called Cel-Link II™ for use with Aerocel® Stay-Seal® with Protape® (SSPT) pipe insulation. Cel-Link II is a fiber-reinforced disk with high-strength, pressure-sensitive adhesive on each side that quickly bonds sections of pipe insulation together. This one-step solution eliminates coverage and tack time variables. Cel-Link II is only available with Aerocel SSPT and is GREENGUARD Gold Certified for low chemical emissions.