

Adhesive Recommendations for K-Flex ECO™

K-Flex ECO™ is an NBR (nitrile butadiene rubber) based halogen-free, flexible, closed cell elastomeric foam insulation product. It is used in many marine applications as it meets the requirements of the IMO (International Maritime Organization) Solas Agreement and EB 4013 (the primary specification for US Navy vessels). Marine applications are generally restricted to lines operating at below ambient conditions. The specifications require the use of a “halogen-free” insulation, which restricts the levels of chlorine, bromine, etc. as they may pose a hazard in the case of a fire situation.

K-Flex® 320, 373 or 420 contact adhesives are recommended to be used with K-Flex ECO™ in marine applications. K-Flex® 320, 373, and 420 contact adhesives are chloroprene-based solvent adhesives. The amount of leachable chlorine in these contact adhesives is minimal to undetectable.

Because the amount of adhesive used in an application with our insulation is so small and the amount of leachable chlorine in the adhesive itself is minimal, K-Flex® contact adhesive can be used in most applications where a halogen-free insulation is required, with no issues relating to corrosive smoke in a fire situation. However, where a zero-halogen system is required, an alternative adhesive, such as K-Flex® 720 LVOC Contact Adhesive can be used as it contains no halogens.

K-Flex® 320 or 373 contact adhesives or PSA (pressure sensitive adhesives) are recommended for use with K-Flex ECO™ in most applications (application temperatures up to 220° F) where adhesives are required for sealing the insulation or adhering it to the surface being insulated. For a halogen-free adhesive, K-Flex® 720 LVOC Contact Adhesive is recommended. K-Flex® 420 contact adhesive is recommended for higher temperature applications between 220° F – 300° F.

For all below ambient applications (piping, tanks and ducts) the above referenced adhesives are recommended. For above ambient piping applications, K-Flex® 320 or 373 contact adhesives are recommended. In the case of hot stainless steel tanks, vessels or ducts where the insulation must be adhered directly to the surface being insulated, the surface should be protected with the appropriate corrosion-inhibited coating. Pins, bands or other mechanical fastening devices are also recommended for this type of application. K-Flex® 720 LVOC Contact Adhesive is a recommended halogen-free adhesive.

Additional questions on the use of adhesives with K-Flex ECO™ should be referred to your K-Flex USA Representative.