

TECHNICAL BULLETIN

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Heat Trace Systems with AEROFLEX® EPDM Closed-Cell Elastomeric Insulation

Heat trace systems, typically composed of electrical tapes & cables, are commonly installed directly on piping systems to increase or maintain the line temperature of pipes and vessels with low or no flow, ultimately in an effort to provide freeze protection.

While AEROFLEX® EPDM insulation can efficiently reduce heat loss on heat-traced systems, only self-regulating heat trace systems should be specified and installed. A self-regulating heat trace system will prevent system temperatures from exceeding the maximum continuous service temperature of AEROFLEX® insulation at 257°F (125°C).

When installing AEROFLEX® insulation over heat trace tapes or cables on piping, a larger inside diameter (ID) of tube insulation (unslit or self-seal tubes) should be installed to account for the ID of the pipe plus thickness of the heat trace element to prevent unnecessary stress on longitudinal seams.

It is critical to completely seal all longitudinal and adjoining seams with an AEROFLEX® adhesive to prevent heat loss and water vapor ingress under the insulation. Water vapor ingress can be detrimental to the pipe or equipment (corrosion under insulation) and heat trace system. As long as the insulation system is completely sealed, any resulting air gaps between the pipe and insulation will not result in heat loss.

AEROFLEX® EPDM insulation offer higher continuous service temperatures than traditional NBR/PVC closed cell elastomeric foam insulation, a wide range of ID's - ¼" to 16" IPS, wall thicknesses - 3/8" to 2" and low permeability @ 0.02 perm-inch for demanding applications.

To learn more, please click here.

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