AEROFLEX

TECHNICAL BULLETIN

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Closed-Cell Elastomeric Pipe Insulation Buried in Concrete

We are often asked if closed-cell elastomeric pipe insulation can safely be buried in concrete substrates. The short answer is yes, with a few caveats.

Although concrete is highly alkaline, it does not negatively affect or degrade AEROFLEX EPDM™ closed-cell pipe and equipment insulation. However, there are factors to consider prior to pouring concrete directly over rubber pipe insulation.

Due to the static load (weight) of concrete, it will compress the insulation by approximately 20%, which will result in a loss of R-value and thermal efficiency. Sleeving the installed pipe insulation in a PVC pipe, corrugated drainpipe, or other rigid pipe type is recommended. If sleeving is not feasible, increasing the insulation thickness, at a minimum, will help to offset most (not all) insulation compression.

Since direct burying elastomeric pipe insulation in concrete is permanent, protecting the insulation with a sleeve is prudent. This step will help to ensure long-term thermal performance and preserve the insulation's life cycle. Sleeving can also be less costly than identifying and repairing an underperforming direct-buried piping system when metered and commissioned.

To learn more, click here.