

## Protecting Piping Insulation to Comply with the IECC

The 2012 and 2015 versions of the International Energy Conservation Code (IECC) include an important section in terms of piping insulation. The code calls for the protection of piping insulation that is exposed to weather, and reads as follows (section R403.3.1 (N1103.3.1) for residential and C403.2.8.1 for commercial):

### ***Protection of piping insulation.***

*Piping insulation exposed to weather shall be protected from damage, including that caused by sunlight, moisture, equipment maintenance, and wind, and shall provide shielding from solar radiation that can cause degradation of the material. Adhesive tape shall not be permitted.*

With more states and municipalities adopting the 2012 and 2015 IECC, it is important to understand the intent of this section, as well as how to comply with this new requirement. The intent of this section is to prevent premature failure of pipe insulation installed outdoors, which is a common occurrence if proper steps are not taken to protect the insulation. It is widely known that the elements, UV, wildlife and abuse can damage pipe insulation, which ultimately reduces the efficiency of the piping system that is insulated. By properly protecting the insulation, the service life of the insulation can be increased, and energy efficiency of the associated system can be maintained.

As this requirement is not merely concerned with UV resistance, an insulation material that is only listed as “UV retardand” or “UV resistant” *would not comply with these code requirements* and would not be acceptable for use in jurisdictions that have adopted these requirements without additional protection.

K-Flex USA offers several products that will help installing contractors comply with this very important section of the energy code:

- **K-Flex 374 Protective Coating:** K-Flex 374 is a water based coating specifically recommended for UV protection on K-Flex USA closed cell tubing and sheet insulation. It provides a flexible, satin finish that is decorative, as well as protective. The coating can be painted onto insulation after it has been installed, and we recommend that an additional coat be reapplied every 2-3 years in order to provide adequate protection over the life of the insulation system.
- **K-Flex Titan™:** K-Flex Titan is a flexible, co-extruded jacketing material that is factory applied to K-Flex Insul-Tube or K-Flex HT pipe insulation. The polymeric jacketing material offers excellent abrasion, weather, and UV resistance while maintaining the insulation’s flexibility, which makes it ideal for outdoor applications.
- **K-Flex CLAD WT and AL:** K-Flex Clad WT and Clad AL offer the best protection from UV, weather, wildlife, and mechanical abuse. The jacketing is a composite product that is comprised of a multi-ply laminate that is available factory adhered to K-Flex USA tubular insulation, or in roll form for field installation on a variety of insulations.

For additional information on how K-Flex USA products can help you comply with local building codes, please contact your K-Flex representative.

