

PROTECTIVE COATING FOR K-FLEX INSULATION

K-Flex® 374 Protective Coating is a white vinyl / acrylic water based coating product. It is designed to provide years of protection for flexible elastomeric insulation from the deteriorating effects of ultraviolet rays (UV) from the sun. K-Flex® 374 Protective Coating should not be confused with waterproof mastic coatings.

K-Flex® 374 has excellent adhesion characteristics to elastomeric insulation products. It is recommended that the coating not be tinted. The storage temperature for 374 should be between 50°F and 90°F. K-Flex® 374 can be subjected short exposures to temperatures below 50°F as long as the temperature does not fall below freezing. The shelf life is 6 months from the date of shipment from the K-Flex USA Youngsville, NC plant or a K-Flex warehouse location, whichever is later for unopened containers.

K-Flex® 374 can be applied by brush, roller, or spray. The coating must be applied to a clean surface, free of dirt, grease, oil, etc., to ensure good adhesion. If the surface requires cleaning, wipe with denatured alcohol, which is fast drying and does not leave a residue. The application temperature range for K-Flex® 374 Protective Coating is 50°F - 100°F. Do not dilute K-Flex® 374 Protective Coating. Two (2) coats are recommended for best appearance and optimum performance. Four (4) hours should be allowed for drying between coats. The coating should be allowed to dry for 24 hours before being subjected to rain or temperatures below freezing. K-Flex® 374 applied below 50° F may have the initial appearance of being acceptable, only to crack or flake off at a later date. If the temperature on the day of the installation is below 50° F, the following options are recommended:

- Return to the job and apply the protective coating after it has warmed up. Applying the coating at a later date, provided the insulation remains clean, is preferable to applying it in unacceptable conditions. If the time period prior to coating application is more than 60 days, the job should be temporarily covered, particularly if it is a roof top application.
- The job can be covered / tented and heat applied to the application during the time of coating and drying.
- Maintain a minimum temperature of 50° F for a minimum of 4 hours after application.

K-Flex® 374 Protective Coating may crack over time, especially if the insulation is flexed. The coating is not as flexible or elastic as the elastomeric insulation. The insulation will expand and contract with variations in the ambient and / or operating temperature. This expansion and contraction may cause the coating to form small cracks. Despite these cracks, the coating will not flake off and will continue to protect the insulation from UV exposure. The coating may yellow slightly from its original white color or become less flexible with age, but this will not inhibit its ability to protect the insulation from UV degradation. The product is not recommended for applications where the insulation will be subjected to standing or ponded water, or for burial applications. Like all water-based paints, K-Flex® 374 Protective Coating will require periodic maintenance. Re-application every 3 years or when required based on periodic inspection will maintain performance.

UV sterilization equipment is sometimes used in air handling systems. These systems give off UV light that is intended to kill mold spores and bacteria. They may be located within duct work or air handling units. Flexible, closed-cell elastomeric duct lining materials are subject to surface degradation due to long term or intense UV exposure. When UV sterilization systems are used in air handling systems insulated with elastomeric duct lining materials, it is necessary to provide a protective coating to protect them from this UV exposure. Coatings used in air handling systems must be registered with the EPA and must have a maximum flame spread of 25 and maximum smoke developed of 50 when tested in accordance with ASTM E84. K-Flex® 374 Protective Coating is suitable for this application.

Other Coating/Jacketing recommendations:

Factory-applied Cladding

K-Flex USA offers a full line of elastomeric insulation products with factory-applied cladding.

K-FLEX CLAD® AL, available in tube and sheet/roll form, is ideal for outdoor applications. The K-FLEX CLAD® AL jacket consists of a polymeric film with an aluminum finish and PET weathering surface. K-FLEX CLAD® AL elbows and tees are also available. K-FLEX CLAD® AL can also be used indoors where an ASTM

E84 25 / 450 flame spread and smoke developed rating is acceptable. K-FLEX CLAD® AL is highly weather, damage and dent resistant.

K-FLEX CLAD® WT, available in tube and sheet/roll form, is ideal for indoor and outdoor applications. The K-FLEX CLAD® WT jacket consists of a UV stabilized PVC with a white finish and PET weathering surface. K-FLEX CLAD® WT elbows and tees are also available. K-FLEX CLAD® WT is ASTM E84 25 / 50 rated, making it acceptable for use both indoors and outdoors. K-FLEX CLAD® WT is highly weather, mechanical damage and dent resistant. K-FLEX CLAD® WT is NSF certified and is ideal for applications requiring wash-down.

K-FLEX CLAD® IN consists of an extremely durable and chemical resistant (hypalon) elastomeric cladding which can be applied to elastomeric pipe and sheet / roll insulation. This product was developed to withstand the rigors of chemical processing plants, off-shore oil rigs and refineries under the most severe weather conditions. It is ideal for applications with extreme temperature cycling or acidic environments.

Factory-applied cladding systems simplify installation and provide a high performance insulation system while cutting installation time and reducing installation cost and long term maintenance requirements.

K-Flex cladding materials are also available in rolls with or without pressure sensitive adhesive backing for field installation.

Coating Recommendations

The following three (3) coatings have been identified as having excellent adhesion to flexible insulation products. All of these are solvent-based mastics and will provide weather protection when applied per the manufacturer's installation instructions.

Approved Coatings for Outdoor Applications:

- Childers Products Company; CP-30 Low Odor Chil-Perm®
- Foster Products Corporation; 30-35 Foster Tite-Fit™ Coating
- Mon-Eco Industries; 55-10 Eco-Vapor Cote Coating

Approved "Peel and Stick" Covering for Outdoor and Heavy Abuse Applications:

- Polyguard Products, Inc. [(800) 541-4994]; ALUMAGUARD™, ALUMAGUARD ALL WEATHER, ALUMAGUARD LITE, ALUMAGUARD COOL WRAP

Additional Approved Coatings (water based) for Light Traffic Areas

- Childers Products Company; CP-10/CP-11 (Brush/Spray)

Surface Preparation

The surface of the insulation must be clean and free of any dust, dirt, scale, moisture, oil and grease. Always follow coating manufacturer's instructions for proper surface preparation.

Application Technique

Always follow coating manufacturer's application instructions and guidelines. Mastic products typically require two coats and may require reinforcing mesh. All coatings will require periodic inspection and maintenance.

Notes:

1. A slight bleed through of the ink used to identify the insulation product could occur on a single coating application. This will not affect the physical properties of the coating.
2. After long term outdoor exposure, the above coatings may weather to a light tan or yellow color. This surface appearance will not affect any other physical properties of the coating.

Other Jacket Recommendations

At the installer's option, metal or plastic (PVC) jacketing can be utilized to provide the necessary outdoor protection of insulation products. Always follow jacketing manufacturer's application instructions and guidelines.