

Below Ambient Applications - Indoor Conditioned Spaces

Proto PVC fitting covers are designed for use on typical piping systems. For applications below ambient temperature, care should be taken to ensure that the PVC fitting cover is fully sealed to prevent moisture from migrating into the fitting. The installed fiberglass insert should be the same thickness as that of the pipe insulation. As a general guideline, one Proto insert should be installed for each inch of pipe insulation thickness. This will ensure that the thermal performance of Proto's insulation system matches that of the installed fiberglass pipe insulation.



Proto PVC fitting covers with inserts are designed for quick installation over elbows, tees, valves, and other types of fittings. These fitting covers are designed to fit pipe insulation sized per ASTM C585.



Before installing the insert, create a vapor dam by applying a vapor barrier mastic around the edges of the adjoining pipe insulation.



Place pre-cut Proto insert(s) around the fitting, positioning the insert on the inside radius of the elbow. In some cases, the insert can be secured and held in place with Proto PVC tape or filament tape.



The edge of the Proto insert should be butted against the end of the pipe covering. Tuck and fold the insulation so it covers all bare surfaces. Care should be taken to not over-compress the insert. The installed insert(s) should be the same thickness as the adjacent pipe insulation.



Apply a vapor barrier mastic along the inside of the fitting cover throat overlap seam and around the perimeter of the jacketed pipe insulation.



Place the fitting cover over the insulation, lapping the vapor barrier mastic-covered edge over the other side of the throat. A serrated tack can be used to firmly lock the fitting cover into place provided that the tack is covered with vapor barrier mastic or Proto PVC tape.

Installation Guide

Cold Pipe System - Below Ambient Temperatures and Severe Service Conditions



Apply Proto's PVC tape over the circumferential joint. The tape should extend over the adjacent jacketed pipe insulation and overlap itself by at least 2 inches (51 mm) on the downward side of the lap. The tape provides securement, an attractive appearance, and completes the vapor seal.



To seal the longitudinal seam, use Proto's solvent weld adhesive. Serrated tacks are not required for this application. Temporary tourniquet straps, elastic cords, or PVC tape may be used to hold the fitting cover in place to allow for the adhesive to set.

PVC Jacketing Installation – Below Ambient Conditions

(This methodology is applicable for above ambient, below 45° F, refrigeration, and sever service conditions)



If a PVC jacket is to be used to protect the pipe insulation jacket, install the pipe fitting cover as described for below ambient or for applications below 45° F. Then place a PVC jacket (preferably cut and curl with self sealing tape) over the pipe jacketed pipe insulation.



Overlap the PVC jacket by 1^{1/2} to 2 inches (38 to 51 mm) over the sealed PVC Jacket cover. Remove the tape release liner and seal the jacket to itself. Overlap the next jacket by 1^{1/2} to 2 inches (38 to 51 mm). Self-sealing tape is a temporary seal. The joints should be fully sealed using Proto's PVC tape, Proto's solvent weld adhesive or silicone sealant.



Option 3A: Seal each circumferential joint using Proto's PVC tape.



Option 3B: Seal each circumferential joint using Proto's solvent weld adhesive.



Seal the longitudinal joint using Proto's solvent weld adhesive. Temporary tourniquet straps, elastic cords, or PVC tape may be used to hold the fitting cover in place to allow the adhesive to set.

Applications below 45°F

Refrigerant Systems & Cold Systems in Severe Service Conditions

For applications where the pipe will be at or below 45°F, or in severe conditions, additional protection is recommended to prevent moisture intrusion.



Utilize vapor dams to eliminate potential for moisture migration if the vapor barrier is compromised. Follow the next step to complete sealing of the fitting.

An intermediate vapor retarder system capable of providing a 0.02 perm or lower should be used. ASJ, FSK, or 2 mil aluminum foil compatible with the PVC shall be used to completely cover and seal the top surface of the insulation prior to installing the Proto PVC fitting cover.

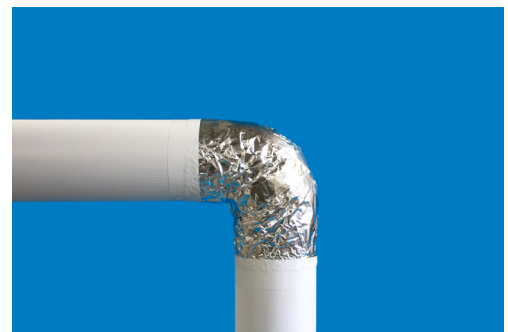
ASJ or ASJ Plus



FSK



Aluminum Foil



It is also recommended that Proto PVC Jacketing be used for all severe service conditions and for applications where abuse resistance and ease of cleaning is required. Install jacketing as described for below ambient conditions.

The physical and chemical properties of the products listed herein represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Please contact customer service at 800.875.7768 to assure current information.

Quality Assurance

Proto Corporation recommends the use of the NIA Thermal Certified Inspector Program, which utilizes inspectors who maintain current certification by NIA to inspect and verify the materials used are, and the total insulation system has been, installed correctly in accordance with the Specifications; throughout the project.

The physical and chemical properties of the products listed herein represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Please contact customer service at 800.875.7768 to assure current information.