

# ALUMAGUARD™

## AN ALUMINUM THEFT DETERRENT FOR EXPOSED REMOTE PIPELINES



Alumaguard™ is a rubberized bitumen membrane used worldwide for installation over insulated piping and ductwork in petrochemical, industrial, and commercial applications. Alumaguard™ is self-adhesive, self-healing if punctured, UV stable and will expand and contract with the mechanical system. See [www.polyguardproducts.com](http://www.polyguardproducts.com) for details of current applications.

An emerging use for Alumaguard is to cover, or even to replace, aluminum jacketing on remote insulated pipelines which might experience an aluminum theft problem.

There are two ways that theft might be eliminated:

1. If the aluminum jacketing is covered with Alumaguard, thieves will be unable to remove the Alumaguard from the jacketing. And when the jacketing is thrown into an aluminum smelting operation, clouds of black smoke from burning rubberized asphalt will fill the area. Thieves will not be anxious to steal Alumaguard coated jacketing again.
2. If aluminum jacketing has been replaced with Alumaguard, thieves have nothing of value, since the aluminum on Alumaguard is a thin foil. Membrane is extremely difficult to remove from insulation and aluminum does not separate from bitumen compound by hand.

Overall project costs in many cases will be reduced by the use of Alumaguard, if a thinner aluminum jacketing, or no aluminum jacketing at all, is used. Alumaguard has replaced exterior aluminum jacketing for insulated ductwork in thousands of projects over the last 10 years.

A further benefit will be obtained: since the primary function of Alumaguard, in its established petrochemical and industrial applications, is to waterproof the insulated system, the user will find the pipeline protected from moisture and corrosion to a degree never possible with aluminum jacketing alone. Properties which enhance moisture protection include:

- Self heals around mechanical fasteners
- Will not suffer metal fatigue from expansion/contraction cycles
- Self healing in case of punctures, may be patched for larger damage areas
- Very low vapor transmission

Alumaguard™ is not, and should not be used, as a mechanical fastener to secure the insulation. Band or pin insulation following the insulation manufacturer's instructions.

**Polyguard**

This Information is based on our best knowledge, but POLYGUARD cannot guarantee the results to be obtained.

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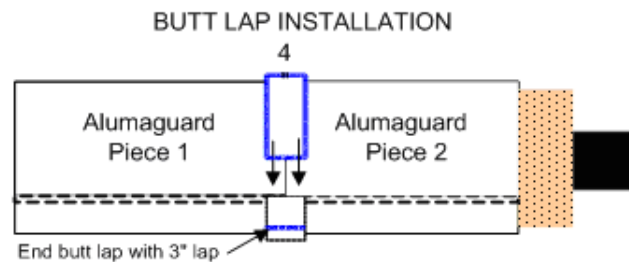
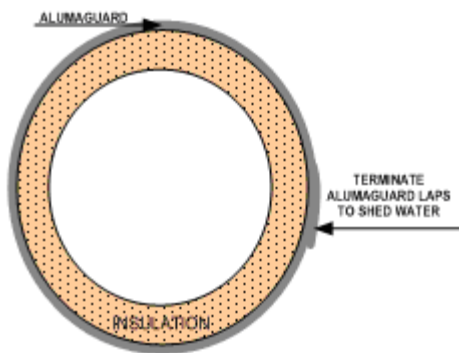
Polyguard Products' has been certified to these quality systems requirements:  
- American Natl. Standards Institute  
- Dutch Council for Certification  
- Deutscher Akkreditierungs Rat

**ALUMAGUARD** is an excellent cold piping jacketing system; superior to metal or PVC in performance. Its properties facilitate installation on cold systems **WITHOUT** the need for slip joints, eliminating a potential vapor breach. **ALUMAGUARD** will expand and contract with the piping system without rupture; minimal wrinkling may occur.

**NOTE: ALUMAGUARD IS NOT TO BE USED AS A MECHANICAL FASTENER!** Insulation must be installed (tape or bands) according to the manufacturers instruction. If **ALUMAGUARD** is pre-applied to pipe cover, it **MUST BE BANDED** when installed. **DO NOT PAINT ALUMAGUARD BEFORE READING OUR TECHNICAL BULLITEN SHEET, it can void your warranty!**

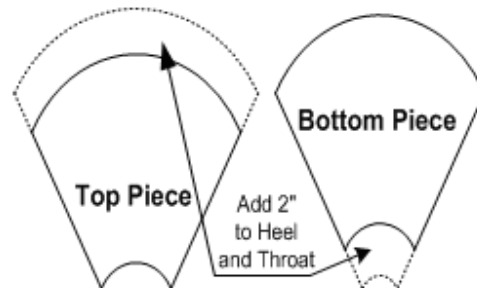
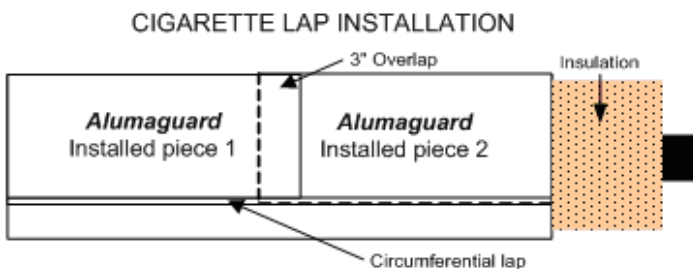
Cold piping systems jacketed with **ALUMAGUARD** or **ALUMAGUARD LITE** should be installed in the following manner; the "stretch out" for each piece should be cut to allow a 6" lap over the circumferential lap. Install tightly around the pipe insulation, rolling with a laminate roller or other firm "rolling pin" type roller to insure contact with the substrate. Each piece should be within 1-1/2" of the previous piece and a 4" wide butt lap placed over the joint and rolled with a roller. The butt lap should start where the circumferential lap ends, wrapping around the pipe, and then lapping over 6" past the starting point. Installation can also be a cigarette wrap method using a 3" longitudinal lap and the same 6" circumferential lap. **ALUMAGUARD is not a mechanical fastener, insulation should be installed with strapping or banding according to manufacturers instruction.**

Alumaguard Lite can be used on pipe insulation indoors—it is 25/50 rated.



**NOTE:** Care should be taken when using **ALUMAGUARD** on hot systems to insure that the surface temperatures **after** insulation do not exceed our upper temperature use limitations. It is important to note that heat transfer through single layer joint seams could result in the softening or melting of the rubberized asphalt compound.

Install the first **ALUMAGUARD** or **ALUMAGUARD LITE** piece over the insulation with a 6" lap terminated at the 4 o'clock position. Install the second piece of **ALUMAGUARD** with 3" overlapped onto the previous piece of **ALUMAGUARD**. The circumferential laps should all line up at the 4 O'clock position to shed water. Roll the surface with a laminate roller or other firm "rolling pin" type roller to insure contact with the substrate. Insulated piping exceeding 12" outside diameter requires the use of banding.



Fittings, 90's, tees, valves, and 45's can be laid out using standard sheet metal methods, modified to allow for overlap. This can be accomplished by adding 1-1/2"-2" to the throat of the bottom half of the fitting and adding 1-1/2" to the heel of the top half of the fitting. The bottom piece is installed first, and then the top piece lapped over the bottom piece to permit water shedding over the lap. Tees, valves and other fittings can be fabricated just like you would use standard layout procedures, adding 1-1/2" to 2" for the required laps. Fittings can also be 'gored', over sizing each gore piece to allow for a lap onto the preceding piece. The two piece method makes a better looking fitting, however, as with metal work, larger fittings must be gored due to material constraints and ease of application. Installers can also use standard metal fitting covers with the Alumaguard products. Care must be used to insure that the fittings are vapor sealed!