

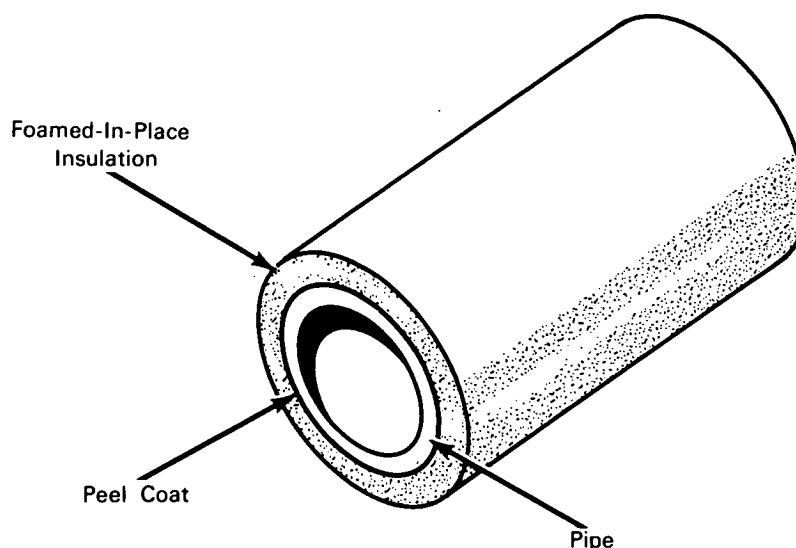
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NASA TECH BRIEF



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Soluble Undercoating Facilitates Removal of Foamed-In-Place Insulation



The problem: It is often necessary to remove foamed-in-place insulation from various pieces of equipment (e.g., reactor vessels, valves, or pipes) which must be repaired or modified. Removal of such insulation is difficult and usually renders it unfit for reuse.

The solution: The surfaces to be protected are covered with a soluble peel coat before the application of the foamed-in-place insulating material. Peel coats are hard-drying films which are readily stripable from their substrates. They are commonly used in painting and plating operations to mask surfaces which are not to be coated.

How it's done: A selected peel coating is sprayed or brushed on the desired surfaces of the equipment and allowed to dry. An appropriate amount of the insulation mixture is then applied over the coating and permitted to foam to the required thickness.

Removal of the insulation is easily effected by slitting it and pouring a suitable solvent into the open slit. The actual solvent used depends on the composition of the peel-coat material used. (Many peel coats are readily soluble in ketones, such as acetone, or even in water.) The solvent dissolves the peel coat, enabling the insulation to be readily stripped off intact from the base material. The same insulation

(continued overleaf)

can then be easily fitted back on the equipment and held in place with metal bands.

Notes:

1. This procedure permits customizing of insulation on substrates of varied and nonstandard configuration. It might be used to mold custom configured insulation sections for field installation which could be readily strapped in place.
2. To facilitate slitting of the insulation, a length of thin wire can be placed on the peel coat before applying the foam mixture. The required slit can be made by gripping the ends of the wire and drawing it up through the insulation.

3. Inquiries concerning this innovation may be directed to:

Technology Utilization Officer
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21000 Brookpark Road
Cleveland, Ohio, 44135
Reference: B65-10344

Patent status: NASA encourages commercial use of this innovation. No patent action is contemplated.

Source: Allan C. Duncan and Carl L. Hill, Jr.
(Lewis-193)