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NASA TECH BRIEF



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Phenolic Cutter for Machining Foam Insulation

Phenolic Cutter for Machining Foam Insulation 2 in. 15° 15° 8 in. Dia. Bottom View

The problem:

The diamond is the most common abrasive presently used for machining varieties of foam insulation. The high cost of cutting this material led to the need for an inexpensive abrasive for such machining operations.

The solution:

A phenolic cutter that can machine polystyrene and polyurethane foams.

How it's done:

A phenolic cutter for machining foam insulation is shown in the figure. The cutter, in which a "prepregged" fiber glass was used as an abrasive, was fabricated and tested in a development laboratory and proved efficient. Pre-pregged fiber glass can be bonded easily to any cutter base made of aluminum, steel, or phenolic. It is relatively inexpensive and readily available.

Notes:

- 1. This innovation, in which pre-pregged fiber glass is used as a cutting abrasive, should be of interest to manufacturers of products made of polyurethane or polystyrene foams.
- 2. No additional documentation is available. Specific questions, however, may be directed to:

Technology Utilization Officer Marshall Space Flight Center Huntsville, Alabama 35812 Reference: B70-10089

Patent status:

No patent action is contemplated by NASA.

Source: A. C. Miller, T. A. Blair, W. S. Stiles, and B. W. Price of North American Rockwell Corporation under contract to Marshall Space Flight Center (MFS-14170)

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