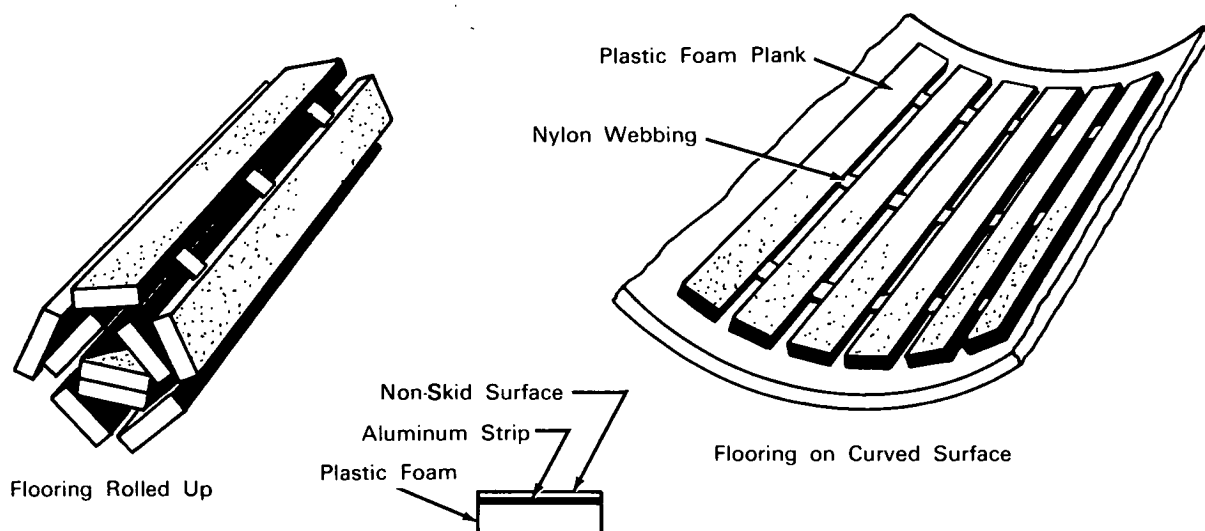


NASA TECH BRIEF



This NASA Tech Brief is issued by the Technology Utilization Division to acquaint industry with the technical content of an innovation derived from the NASA space program.

Portable Flooring Protects Finished Surfaces, Is Easily Moved



The problem: Protecting the curved, finished surfaces of tanks or large machines when workmen must stand on such surfaces. Space limitations and small access openings usually prohibit the use of large timbers or braces on stringers.

The solution: Temporary flooring that is also portable. It is made from blocks of rigid plastic foam, faced with aluminum strips. The assembly is held together by nylon webbing.

How it's done: Plastic foam planks, (styrofoam, poly-urethane or similar plastic foams), about 1 inch thick and 4 inches wide are fastened together with nylon webbing 2 inches wide. Length of the foam planks may be varied to fit the application. Several methods of fastening the webbing to the planks are suitable but in this case the webbing is put through slots in the planks. Aluminum strips approximately

0.020 inch thick are glued to the tops of the planks and then an adhesive-backed, non-skid surface is cemented over the aluminum. The resulting mat is a portable, temporary flooring that will support the weight of a worker. It can be quickly rolled up so that it can be carried through the openings of cylindrical or spherical tanks.

Not only does the portable flooring serve as a satisfactory support for the workman and his equipment but it acts as a shock absorber if tools are dropped. This flooring is lighter and offers more protection than wooden floor mats while it distributes weight better than foam-rubber pads. It can be assembled in the shop from standard materials and will last indefinitely.

Notes:

1. This innovation may be used as temporary flooring over flat, curved or irregular surfaces which must

(continued overleaf)

be protected. It is particularly useful where only a small opening is available or where weight of the protective flooring would be a work factor.

2. Portable flooring could serve as a temporary passenger walk-way to an aircraft over wet ground or

as a protective covering for walking on wing surfaces in ground servicing.

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

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