

NASA TECH BRIEF



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Film Coating Permits Low-Force Scribing

The problem:

In using coated films for scribed recordings of instrumentation, considerations of the force required for clear-cut scribing and the characteristics of the residue formed are of considerable interest. High scribing forces impose power and mechanical problems while abrasive scribe residue may damage close tolerance surfaces.

The solution:

A film coating that requires low scribing force as first deposited, that is relatively unaffected by aging, and that gives off a soft, fine scribe residue containing a proven lubricant.

How it's done:

A commercially available transparent film is coated with a solvent-drying opaque system containing a dispersed solid pigment phase, a continuous binder phase, and a fluorocarbon telomer having low intraparticle cohesive strength and very low bonding attraction to all other substances. This latter acts as a shear-strength reducing filler that is a lubricant for the

scribe tool and any surfaces contacted by the residue. In curing, the solvent (polyisobutylene) improves film coating flexibility and scribing qualities.

Notes:

1. This should provide an improved coating for scribe-able graphic transparencies.
2. Inquiries concerning this invention may be directed to:

Technology Utilization Officer
Manned Spacecraft Center
Houston, Texas 77058
Reference: B66-10609

Patent status:

Inquiries about obtaining rights for the commercial use of this invention may be made to NASA, Code GP, Washington, D.C. 20546.

Source: Robert Willing
of North American Aviation, Inc.
under contract to
Manned Spacecraft Center
(MSC-990)

Category 03