NASA TECH BRIEF

High-Strength Braze Joints Between Copper and Steel

The problem:

To develop a method of producing high-strength braze joints between copper and steel.

The solution:

Plate the faying surface of the copper to be brazed to the steel with a layer of gold having a thickness of 0.00005 to 0.0004 inch. Tests have shown that the thin gold plating reduces porosity in the braze area to a negligible amount, and the strength of the resultant joint is above that of the copper itself.

Notes:

1. The thickness of the gold plating should not exceed 0.0004 inch to prevent porosity and a low-strength brazed joint.
2. Inquiries concerning this invention may be directed to:

   Technology Utilization Officer
   Marshall Space Flight Center
   Huntsville, Alabama 35812
   Reference: B67-10211

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: R. F. Kuhn
of North American Aviation, Inc.
under contract to
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