

# NASA TECH BRIEF



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## 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  
Marshall Space Flight Center  
(M-FS-2519)

Category 05