

# AEROSPACE MATERIAL SPECIFICATION

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Superseding AMS 7223

## RIVETS, ALUMINUM ALLOY 4.5Cu - 1.5Mg - 0.6Mn (2024 - T4)

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# AERONAUTICAL MATERIAL SPECIFICATIONS

## AMS 7223

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York 17, N.Y.

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Revised

### RIVETS, ALUMINUM ALLOY 4.5Cu - 1.5Mg - 0.6Mn (2024-T4)

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. APPLICATION: Primarily for joining aluminum alloys where a high attainable strength in riveted joints is required. These rivets require re-solution heat treatment within 2 hr before use unless rivets are stored, after solution heat treatment, at a temperature sufficiently low to prevent precipitation hardening.
3. COMPOSITION:

|                         |            |
|-------------------------|------------|
| Copper                  | 3.8 - 4.9  |
| Magnesium               | 1.2 - 1.8  |
| Manganese               | 0.30 - 0.9 |
| Iron                    | 0.50 max   |
| Silicon                 | 0.50 max   |
| Zinc                    | 0.25 max   |
| Chromium                | 0.10 max   |
| Other Impurities, each  | 0.05 max   |
| Other Impurities, total | 0.15 max   |
| Aluminum                | remainder  |
4. CONDITION:
  - 4.1 Solution heat treated following cold heading, unless otherwise specified.
  - 4.2 Rivets shall be finished with an aluminum oxide coating applied by the anodic process.
5. TECHNICAL REQUIREMENTS:
  - 5.1 Shear Strength: The shank shall have shear strength not lower than 37,000 psi, determined after 4 - 5 days aging at room temperature following solution heat treatment.
6. QUALITY: Parts shall be uniform in quality and condition, and free from seams, fins, clinch or die marks, cold shuts, coarse grain, and other injurious imperfections. Parts properly solution heat treated before use shall drive satisfactorily with full heads and, after driving, shall be free from cracks affecting the strength of the parts.
7. REPORTS: Unless otherwise specified, the vendor of parts shall furnish with each shipment three copies of a report stating that the chemical composition of the wire used for making the parts conforms to the requirements specified. This report shall include the purchase order number, material specification number, size, part number, and quantity.