

AEROSPACE MATERIAL SPECIFICATIONS

AMS 7237

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

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Revised

RIVETS, ALLOY, CORROSION AND HEAT RESISTANT
Nickel Base - 22Cr - 1.5Co - 9.0Mo - 0.60W - 18.5Fe

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. APPLICATION: Rivets requiring corrosion resistance, and heat and oxidation resistance up to 2200 F (1205 C) and relatively high strength above 1500 F (815 C).
3. COMPOSITION:

Carbon	0.05 - 0.15
Manganese	1.00 max
Silicon	1.00 max
Phosphorus	0.040 max
Sulfur	0.030 max
Chromium	20.50 - 23.00
Cobalt	0.50 - 2.50
Molybdenum	8.00 - 10.00
Tungsten	0.20 - 1.00
Iron	17.00 - 20.00
Nickel	remainder

- 3.1 Check Analysis: Composition variations shall meet the requirements of the latest issue of AMS 2269.
4. CONDITION: Cold headed, unless purchaser permits machining, and solution heat treated, and descaled if necessary. Rivets shall be fabricated from wire cold drawn from hot finished wire or rod which has been previously ground or has had surface preparation (other than by pickling) for removal of seams and other injurious surface imperfections.
5. TECHNICAL REQUIREMENTS:
 - 5.1 Heat Treatment: Rivets shall be solution heat treated by heating to $2150\text{ F} + 25$ ($1176.7\text{ C} + 14$), holding at heat for 7 - 10 min., and cooling. The furnace atmosphere shall be such that it will not cause surface hardening.
 - 5.2 Hardness: Rivets shall have hardness not higher than Vickers 230 or equivalent when determined on a flat, smooth, filed or ground surface near the midlength of the shank.
 - 5.3 Formability: Rivets shall be capable of being driven satisfactorily with a full head free from cracks; rivets may be heated for driving.
6. QUALITY: Rivets shall be uniform in quality and condition, clean, sound, smooth, and free from foreign materials and from internal and external imperfections detrimental to their performance.

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