

AEROSPACE MATERIAL SPECIFICATIONS

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

AMS 7232E

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RIVETS, ALLOY, CORROSION AND HEAT RESISTANT Nickel Base - 15.5Cr - 8.0Fe

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. **APPLICATION:** Rivets requiring corrosion resistance, and heat and oxidation resistance up to 2000 F (1093 C), but not high strength at that temperature. Rivets shall not be hand peened during driving.

3. **COMPOSITION:**

	min	max
Ø Carbon	--	0.06
Manganese	--	1.00
Silicon	--	0.50
Sulfur	--	0.015
Chromium	14.00 - 17.00	
Nickel + Cobalt	72.00	--
Cobalt (1)	--	1.00
Iron	6.00 - 10.00	
Columbium + Tantalum (1)	--	1.00
Titanium (1)	--	0.50
Aluminum (1)	--	0.35
Copper	--	0.50

(1) Determination not required for routine acceptance.

- Ø 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 annealed, 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 **Annealing:** Rivets shall be heated to 1950 F $\pm$ 10 (1065.6 C $\pm$ 5.6), held at heat for 5 - 20 min., and cooled. The furnace atmosphere shall be such that it will not cause surface hardening.
 - 5.2 **Hardness:** Rivets shall have hardness not higher than Vickers (DPH) 151, or equivalent, when determined on a flat, smooth, filed or ground surface near the midlength of the shank. (Conversions to Vickers from other scales shall be in accordance with the issue of ASTM E140 listed in the latest issue of AMS 2350, using the table for nickel alloys.)
 - 5.3 **Formability:** Rivets shall be capable of being driven satisfactorily with a full head free from cracks.
6. **QUALITY:** Parts 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.