AERONAUTICAL MATERIAL SPECIFICATION

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AMS 4575B

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NICKEL-COPPER ALLOY TUBING, BRAZED, CORROSION RESISTANT
67Ni - 30Cu
Annealed

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.

2. FORM: Copper furnace brazed.

3. APPLICATION: Primarily for fluid lines, such as primer and fuel lines, requiring corrosion resistance with strength relatively high for non-ferrous alloys.

4. COMPOSITION:

	Nickel + Cobalt	63.0 - 70.0
	Iron	2.5 max
	Manganese	2.0 max
ø	Cobalt, if determined	1.0 max
	Silicon	0.5 max
	Carbon	0.30 max
	Sulfur	0.024 max
	Copper	remainder

5. CONDITION: Cold drawn after brazing, and annealed.

6. TECHNICAL REQUIREMENTS:

6.1 Tensile Properties:

Tensile Strength, psi	85,000 max
Elongation, % in 2 in.	32 min

6.2 Flarability: Tubing shall be capable of being flared without formation of cracks or other visible defects. Specimens for flaring may be cut from any portion of the tube, or an entire tube may be used as a specimen. The end of the specimen to be flared shall be cut square, with the cut end smooth and ø free from burrs, but not rounded. The specimen shall, at room temperature, be forced axially with steady pressure over a hardened and polished tapered steel pin having a 74 deg included angle, to produce a flare having a permanent expanded OD not less than 1.25 times the original nominal OD.

6.3 Hydraulic Strength: Tubing shall show no bulges, leaks, or other defects when subjected to an internal hydrostatic pressure (P) determined from the formula $P = \frac{2ST}{D}$ where:

P = Test pressure in psi.
S = 17,500 psi.
T = Nominal wall thickness in inches.
D = Nominal OD of tube in inches.