AERONAUTICAL MATERIAL SPECIFICATION

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S T E E L S H E E T , A N D S T R I P, Corrosion and Heat Resistant
18 Chromium - 8 Nickel

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

2. COMPOSITION:

	Carbon	.08 max
	Manganese	2.50 max
	Silicon	1.50 max
	Phosphorous	0.03 max
	Sulphur	0.03 max
	Chromium	17.00 min
	Copper	0.5 max
	Nickel	8.00 min
	Columbium	10 x C to 1.00
or	Titanium	5 x C to .60

3. CONDITION: (a) Solution heat treated and pickled.

(b) Tensile Test specimens shall be pulled at a rate of .05 inch per minute and shall conform to the following requirements:

Tensile Strength lb/sq in.	100,000 max
Elongation, % in 2 in.	40 min

For widths 9 inches or over, tensile test specimens shall be taken with the axis perpendicular to the direction of rolling. For widths less than 9 inches, tensile test specimens shall be taken with the axis parallel to the direction of rolling.

(c) Bend test specimens shall withstand cold bending in any direction of the sheet, without cracking through an angle of 180° over a diameter equal to the thickness of the specimen.

4. QUALITY: (a) This material must be uniform in quality, free from surface or internal defects and must not reveal material defects during fabrication.

(b) All sheets or strips shall be commercially straight, smooth and free from grease or other foreign matter.

5. EMBRITTLEMENT: The material shall be capable of meeting the following test but the actual conducting of the test is an option of the purchaser:

After being heated to 1200°F for two hours and air cooled, embrittlement test specimens shall withstand a 48 hour boiling in 10% copper sulphate, 10% sulphuric acid solution without evidence of intercrystalline surface attack. After such immersion, the specimens must withstand cold bending through an angle of 180° over a diameter equal to the thickness of the specimen without cracking.

6. TOLERANCE: The following variations in thickness are permissible. All dimensions