

# AEROSPACE

## MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc.

485 Lexington Ave., New York 17, N.Y.

AMS 5508A

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### STEEL SHEET, STRIP, AND PLATE, CORROSION AND MODERATE HEAT RESISTANT 13Cr - 2.0Ni - 3.0W

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. **APPLICATION:** Primarily for parts and assemblies, such as shrouds, ducts, and cases, requiring oxidation resistance up to 1000 F (540 C). Creep strength and resistance to tempering of this steel are better than those of the common 13Cr type.
3. **COMPOSITION:**

	min	max
Carbon	0.15	0.20
Manganese	--	0.50
Silicon	--	0.50
Phosphorus	--	0.040
Sulfur	--	0.030
Chromium	12.00	14.00
Nickel	1.80	2.20
Tungsten	2.50	3.50
Molybdenum	--	0.50
Aluminum	--	0.15
Copper	--	0.50
Tin	--	0.05

- 3.1 **Check Analysis:** Composition variations shall meet the requirements of the latest issue of AMS 2248.

4. **CONDITION:**

- 4.1 **Sheet:** Hot rolled, annealed, and descaled, having a surface finish as close as possible to a commercial corrosion resistant steel No. 2D finish; standards for acceptance and rejection shall be as agreed upon by purchaser and vendor.
- 4.2 **Strip:** Cold rolled, annealed, and descaled (No. 1 Strip Finish).
- 4.3 **Plate:** Hot rolled, annealed, and descaled.

5. **TECHNICAL REQUIREMENTS:**

- 5.1 **Tensile Properties:**

Ø	Tensile Strength, psi	150,000 max
	Elongation, % in 2 in.	10 min

- 5.2 **Hardenability:** Material 0.375 in. and less in thickness and 0.375 in. thick specimens cut from thicker material shall be capable of meeting the following test: