

AERONAUTICAL MATERIAL SPECIFICATIONS

AMS 5508

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

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Revised

STEEL SHEET AND STRIP, CORROSION AND MODERATE HEAT RESISTANT
13Cr - 2Ni - 3W

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

Check Analysis
Under Min or Over Max

Carbon	0.15 - 0.20	0.01	0.01
Manganese	0.50 max	--	0.03
Silicon	0.50 max	--	0.05
Phosphorus	0.040 max	--	0.005
Sulfur	0.030 max	--	0.005
Chromium	12.00 - 14.00	0.15	0.15
Nickel	1.80 - 2.20	0.07	0.07
Tungsten	2.50 - 3.50	0.10	0.10
Molybdenum	0.50 max	--	0.03
Aluminum	0.15 max	--	--
Copper	0.50 max	--	0.03
Tin	0.05 max	--	--

5. CONDITION:
 - 5.1 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.
 - 5.2 Strip: Cold rolled, annealed, and descaled (No. 1 Strip Finish).
 - 5.3 Plate: Hot rolled, annealed, and descaled.

6. TECHNICAL REQUIREMENTS:

6.1 Tensile Properties:

Tensile Strength, psi	145,000 max
Elongation, % in 2 in.	
Thickness: Under 0.062 in.	10 min
0.062 in. and over	12 min

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