

# AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.  
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AMS 5517D

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STEEL SHEET AND STRIP, CORROSION RESISTANT  
18Cr - 8Ni  
Cold Rolled - 125,000 psi

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 applications requiring moderate drawing or forming.
3. COMPOSITION:

|            |           | Check Analysis |                 |
|------------|-----------|----------------|-----------------|
|            |           | Under          | Min or Over Max |
| Carbon     | 0.15 max  | --             | 0.01            |
| Manganese  | 2.00 max  | --             | 0.04            |
| Silicon    | 1.00 max  | --             | 0.05            |
| Phosphorus | 0.040 max | --             | 0.005           |
| Sulfur     | 0.030 max | --             | 0.005           |
| Chromium   | 17.00 min | 0.20           | --              |
| Nickel     | 7.00 min  | 0.10           | --              |
| Molybdenum | 0.50 max  | --             | 0.03            |
| Copper     | 0.50 max  | --             | 0.03            |

## 4. CONDITION:

- 4.1 Sheet: Solution heat treated, descaled and cold rolled (No. 2B Finish).
- 4.2 Strip: Cold rolled, solution heat treated, descaled and rerolled (No. 2 Strip Finish).

## 5. TECHNICAL REQUIREMENTS:

### 5.1 Tensile Properties:

Tensile Strength, psi 125,000 - 150,000  
Yield Strength at 0.2% Offset or at 0.0098 in.  
in 2 in. Extension Under Load, (E=26,000,000) psi 75,000 min  
Elongation, % in 2 in. 25 min

- 5.1.1 For widths 9 in. and over, tensile test specimens shall be taken with the axis perpendicular to the direction of rolling. For widths less than 9 in., tensile test specimens shall be taken with the axis parallel to the direction of rolling.

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