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AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
29 West 39th Street
New York City

AMS
5690

STEEL WIRE SCREEN, CORROSION RESISTANT
18 Chromium - 8 Nickel - 2 Molybdenum

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

2. FORM: Cold drawn wire or cold drawn wire screening.

3. COMPOSITION:

Carbon	0.10 max
Manganese	2.50 max
Silicon	0.75 max
Phosphorus	0.03 max
Sulphur	0.03 max
Chromium	16.00 - 18.00
Nickel	9.00 - 14.00
Molybdenum	2.00 - 3.00

4. CONDITION: (a)Annealed and free from continuous carbide network.

(b)The wire shall be capable of being bent 180° flat on itself without cracking.

5. QUALITY: (a)The wire shall be uniform in quality, cylindrical, clean, and free from kinks, twists, scrapes, splits, cold shuts, and other injurious defects.

(b)The surface must have a bright, smooth cold-drawn finish, free from pits, abrasions, and other surface imperfections.

6. EMBRITTLEMENT: Samples of the material, after being heated to 1200°F for two hours and air-cooled, shall withstand a 48-hour boiling in 10% copper sulphate, 10% sulphuric acid solution without showing evidence of intercrystalline surface attack. After immersion as above, the samples must bend 180° over a diameter equal to the thickness without cracking.

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

Diameter	Tolerance plus	Tolerance minus
0.025 or less	0.000	0.0005
0.026 to 0.032, inclusive	0.000	0.001
0.033 to 0.090, "	0.000	0.002
0.091 to 0.180, "	0.000	0.003

8. REPORTS: The manufacturer shall furnish three copies of a certified report of the chemical analysis of each shipment. This report shall include the purchase order number, material specification number, size, quantity, and part number if parts are supplied.