AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS5690D

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STEEL WIRE, CORROSION RESISTANT
17Cr - 12Ni - 2.5Mo (SAE 30316)

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 use in woven wire screening.

3. COMPOSITION:

		Check Analysis Under Min or Over Max	
Carbon	0.08 max	--	0.01
Manganese	2.00 max	--	0.04
Silicon	1.00 max	--	0.05
Phosphorus	0.04 max	--	0.005
Sulfur	0.03 max	--	0.005
Chromium	16.00 - 18.00	0.20	0.20
Nickel	10.00 - 14.00	0.10	0.15
Molybdenum	2.00 - 3.00	0.10	0.10
Copper	0.50 max	--	0.03

4. CONDITION: Solution heat treated free from contimuous carbide network and bright finished.

5. TECHNICAL REQUIREMENTS:

5.1 Bending: Wire shall be capable of being bent at room temperature flat on itself without breaking or cracking of the surface.

6. QUALITY:

6.1 Wire shall be uniform in quality and condition, cylindrical, clean, and free from kinks, twists, scrapes, splits, cold shuts and other injurious defects.

6.2 The surface shall have a bright, smooth, cold-drawn finish, free from pits, abrasions, and other surface imperfections.

7. TOLERANCES: Unless otherwise specified, wire shall conform to the following tolerances:

Nominal Diameter Inch	Tolerance, Inch Plus and Minus
0.023 and under	0.0004
Over 0.023 to 0.032, incl	0.0005
Over 0.032 to 0.043, incl	0.0008
Over 0.043 to 0.312, incl	0.001