

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 5690E

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STEEL WIRE, CORROSION AND HEAT 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, and as bare wire filler metal for welding.
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	0.040 max	--	0.005
Ø	Sulfur	0.030 max	--	0.005
	Chromium	17.00 - 20.00	0.20	0.20
	Nickel	12.00 - 14.00	0.15	0.15
	Molybdenum	2.00 - 3.00	0.10	0.10
	Copper	0.50 max	--	0.03

4. CONDITION: Solution heat treated free from continuous 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.
 - 5.2 Melting: When used for welding, melted wire shall flow smoothly and evenly and shall be capable of producing acceptable welds.
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.