AERONAUTICAL MATERIAL SPECIFICATIONS

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

AMS 5776

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Revised

STEEL WIRE, CORROSION RESISTANT
12.5Cr

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.

2. APPLICATION: Primarily for use as bare wire filler metal for welding corrosion resistant alloys of similar composition.

3. COMPOSITION:

		Check Analysis Under Min or Over Max	
Carbon	0.12 max	--	0.01
Manganese	1.00 max	--	0.04
Silicon	1.00 max	--	0.05
Phosphorus	0.040 max	--	0.005
Sulfur	0.030 max	--	0.005
Chromium	11.50 - 13.50	0.20	0.20
Nickel	0.75 max	--	0.05
Molybdenum	0.50 max	--	0.05
Aluminum	0.05 max	--	0.01
Copper	0.50 max	--	0.05
Tin	0.05 max	--	0.01

4. CONDITION: Unless otherwise specified, cold drawn, annealed, and descaled.

5. TECHNICAL REQUIREMENTS:

5.1 Weldability: Melted wire shall flow smoothly and evenly during welding and shall be capable of producing acceptable welds.

5.2 Hardenability: Weld metal deposits approximately 1/4 in. in thickness deposited on AMS 5504 sheet shall be capable of attaining hardness of Rockwell C 35 - 45 or equivalent, when heated to 1750 F ± 15, held at heat for 15 - 30 min., and cooled in still air.

6. QUALITY: Wire shall be uniform in quality and condition, clean, sound, smooth, and free from foreign materials and from internal and external imperfections detrimental to its use for welding purposes.

7. TOLERANCES:

7.1 Unless otherwise specified, straight lengths shall not vary more than ± 1/4 in. from the length ordered.

7.2 Unless otherwise specified, diameter of the wire shall not vary more than ± 0.002 in. from the size ordered.

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