

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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Revised

STEEL WIRE

0.75Si - 0.6Cr - 0.2Mo - 0.1Zr (0.10-0.17C)

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.

3. COMPOSITION:

Check Analysis			
Under Min or Over Max			
Carbon	0.10 - 0.17	0.01	0.01
Manganese	0.50 - 0.80	0.03	0.03
Silicon	0.60 - 0.90	0.05	0.05
Phosphorus	0.040 max	--	0.005
Sulfur	0.040 max	--	0.005
Chromium	0.50 - 0.75	0.03	0.03
Nickel	0.25 max	--	0.03
Molybdenum	0.15 - 0.25	0.02	0.02
Zirconium	0.05 - 0.15	0.02	0.02
Copper	0.35 max	--	0.03

4. CONDITION: Cold drawn, unless otherwise specified.

5. TECHNICAL REQUIREMENTS: Melted wire shall flow smoothly and evenly during welding, and shall be capable of producing acceptable welds.

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

7. TOLERANCES: Unless otherwise specified, the following tolerances apply.

7.1 Straight Lengths:

7.1.1 Diameter: Plus and minus 0.002 inch.

7.2 Coils:

7.2.1 Diameter: Plus and minus 0.001 inch.

7.2.2 Out of Roundness: Shall be not greater than one-half the total diameter tolerance.

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