

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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Revised

STEEL GAS-WELDING RODS Low Carbon

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

Carbon	0.06	max
Manganese	0.25	max
Silicon	0.08	max
Phosphorus	0.040	max
Sulfur	0.045	max
3. **CONDITION:** Cold drawn and copper coated, unless plain is specified.
4. **QUALITY:**
 - 4.1 Rods shall be uniform in quality and condition, clean, sound, smooth, and free from foreign materials and from internal and external defects detrimental to their use for welding purposes.
 - 4.2 Rods shall demonstrate good weldability and shall flow smoothly and evenly without unusual sparking or bubbling.
5. **STANDARD SIZES:**
 - 5.1 **Diameter:** 1/16, 3/32, 1/8, 5/32, 3/16, 1/4, 5/16 and 3/8 in.
 - 5.2 **Length:** Straight lengths of 36 in., unless coils are ordered.
6. **TOLERANCES:**
 - 6.1 **Diameter:** Plus and minus 0.005 in.
 - 6.2 **Length (Straight):** Minus 1/4 in. and plus 0.
7. **REPORTS:** Unless otherwise specified, the vendor of rods shall furnish with each shipment three copies of a notarized report showing the results of tests for chemical composition of the rods in the shipment, or stating that the chemical composition of the rods conforms to the requirements specified. This report shall include the purchase order number, material specification number, size, and quantity.
8. **PACKAGING:** Unless otherwise specified, rods shall be supplied in bundles suitably wrapped to protect against damage during shipment and under normal storage conditions. Each bundle shall have attached a metal tag showing vendor's identification, purchase order number, material specification number, size, and quantity.

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