



AEROSPACE MATERIAL SPECIFICATION

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AMS 2411A

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SILVER PLATING For High Temperature Applications

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. **APPLICATION:** Primarily to prevent galling or seizing of surfaces of parts, such as fasteners, made of corrosion resistant steels and alloys for use at temperatures up to 1400 F (760 C).
3. **PREPARATION:**
 - 3.1 Parts shall be cleaned to remove all grease, oil, and dirt and then shall be grit blasted as necessary to remove all heat treatment oxide and scale and to produce a frosted appearance.
 - 3.2 After grit blasting, parts shall be cleaned to remove all residual abrasive and then may be etched in a suitable solution, such as ferric chloride - hydrochloric acid, to promote adhesion.
 - 3.3 Electrical contacts shall be made in such manner as will ensure that no chemical or immersion deposition will occur.
4. **PROCEDURE:** Parts shall be plated in the following sequence:
 1. Nickel Strike
 2. Silver Strike
 3. Silver Plate

Following the silver plating operation, parts shall be rinsed and dried.
5. **THICKNESS:**
 - 5.1 Where "silver flash" is specified, plate thickness shall be approximately 0.0001 inch.
 - 5.2 Thickness of plate other than flash shall be as specified on the drawing. If machining of plated metal is required, plate thickness as deposited shall be sufficient to allow machining of all areas of plated surfaces to the dimensions specified on the drawing.
6. **TECHNICAL REQUIREMENTS:**
 - 6.1 Silver as plated shall be not less than 99.9% pure, but actual determination of purity shall not be required as a routine inspection procedure; the process of plating shall be controlled to produce this purity.
 - 6.2 **Heat Resistance:** Parts shall be capable of passing the following test:
 - 6.2.1 Parts shall be heated to the following applicable temperature in an air atmosphere, held at heat within ± 15 F (± 8.3 C) for 2 hr, and cooled in still air.
 - 6.2.1.1 Parts made of low alloy steels, such as AMS 6304, and martensitic or precipitation-hardenable corrosion resistant steels, such as AMS 5616 or AMS 5643, shall be heated at 900 F (482.2 C).
 - 6.2.1.2 Parts made of austenitic corrosion resistant steels, such as AMS 5640, and precipitation-hardenable, corrosion and heat resistant steels, such as AMS 5735, shall be heated at 1200 F (648.9 C).

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