



AEROSPACE MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc.

485 Lexington Ave., New York, N. Y. 10017

AMS 2666B

Superseding AMS 2666A

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SILVER BRAZING High Temperature

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 joining iron, copper, nickel, and cobalt alloys by the use of silver alloys where joints having high strength up to 800 F (427 C) are required.
3. **PROCESS REQUIREMENTS:**
 - 3.1 **Surface Condition:** The surfaces to be joined shall be clean prior to assembly. Surfaces shall not be highly polished.
 - 3.2 **Fluxing:** Unless parts are precleaned and then brazed in an inert atmosphere or unless a fluxing atmosphere is used in furnace brazing, flux conforming to the latest issue of AMS 3411 shall be applied so that the surfaces to be joined are completely coated. When permitted by purchaser, flux conforming to AMS 3410 or AMS 3411 may be used in furnace brazing in hydrogen atmospheres.
 - 3.3 **Assembly:** The parts to be joined shall be assembled so that the clearances between mating surfaces are within the tolerances specified on the drawing. (Note. A clearance of 0.0015 in. on a side is considered optimum.) The assembly should be supported so that the parts will be in proper alignment after brazing.
 - 3.4 **Brazing Material:** Unless otherwise specified, silver brazing alloy shall conform to AMS 4772. Sufficient brazing alloy shall be placed within, or in close proximity to, the joint.
 - 3.5 **Joining:** Unless otherwise specified, heating and joining may be effected by any of the following methods: furnace, electrical induction, electrical resistance, molten salt, molten brazing alloy, torch, or burner. Furnace brazing shall be performed in a suitable protective atmosphere as defined in 3.5.1. Parts shall be heated until the brazing alloy melts and the joint is formed. Further heating shall be held to a minimum. The temperature to which joint areas are heated will vary with the method of heating and the flux used but should not exceed 1725 F (941 C). Furnace brazing and immersion brazing may be used only when hardness of detail parts will not be reduced below the drawing limits.
 - 3.5.1 Except as specified in 3.5.1.1 and 3.5.1.2, the furnace atmosphere for brazing shall be hydrogen of not less than 99.94% purity and dew point not higher than -25 F (-32 C) as determined on gas being exhausted from the furnace or retort work zone.

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