

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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FLUX, SILVER BRAZING

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. FORM: Paste containing not more than 30% water by weight.
3. APPLICATION: Primarily for silver brazing nonferrous (excluding aluminum- and magnesium-base alloys) and ferrous metals including austenitic steels, at temperatures between 1200 F and 1600 F.
4. TECHNICAL REQUIREMENTS:
 - 4.1 General:
 - 4.1.1 Flux shall be an intimately blended mixture of uniform consistency. It shall not separate in container to such an extent that it cannot be restored to uniform consistency by stirring.
 - 4.1.2 Flux, diluted with water as required, shall have acceptable fusibility and acceptable application and fluxing characteristics, and shall produce satisfactory brazed joints of any type on copper- and nickel-base alloys and all types of steels, including corrosion resistant types, when used in conjunction with silver brazing alloys.
 - 4.2 Properties:
 - 4.2.1 Flux shall withstand heating in a ceramic container to 1600 F and holding at that temperature for 30 min. without sufficient change in chemical characteristics as to cause attack of the container; loss of water will not be considered as change in characteristics. On heating, flux shall fuse at 1150 F or lower; on cooling from 1600 F, flux shall remain in the liquid state until temperature drops to 1150 F or lower.
 - 4.2.2 Flux, when placed on a 40-mesh sieve and worked lightly with a brush, shall pass completely through the sieve. If the flux has partially coagulated in the container, the flux may, before conducting the test, be warmed over a water bath until it has returned to its normal consistency.
 - 4.2.3 Flux shall not produce, during use, a flame or smoke of sufficient intensity to obscure the work.
 - 4.2.4 Flux shall be soluble in water at 175 F or lower after being subjected to brazing operations.
5. QUALITY: Flux shall be free from all substances which might affect its serviceability.

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