

**FORCE  
INDUSTRIES  
DIVISION**

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**PRODUCT INFORMATION**

**AMCO 33** (581)  
**ALUMINUM BRAZING FLUX**

**GENERAL CHARACTERISTICS & USES:** AMCO 33 flux is formulated by ALCOA for brazing aluminum and is normally used with type 4047 filler alloy. This flux can also be used for furnace and automatic flame brazing operations. It has proved its reliability in industry for more than four decades.

**PHYSICAL DATA**

Appearance:	White powder
Particle size:	min 80% <150 mesh
Melting range:	915-1115 °F
Brazing Range:	1060-1140 °F
Solubility in Water (boiling):	93-97%

**APPLICATION:** Amco 33 is recommended for use on all brazeable aluminum including Al3000, 5000 and 6000 series using BalSi-4 (type 718) filler alloy, liquidus 1080 °F. The flux is normally mixed with distilled or deionized water to form a 60-75% by weight slurry. Flux mixtures should be held in plastic, enameled, porcelain or rubber lined metal containers to avoid contamination of the flux.

For manual torch brazing, the flux paste is brushed on the joint area. The joint is heated until the flux melts and slightly darkens the aluminum surface. The darkening is due to the flux reaction that deposits heavy metal on the surface, which aids filler metal wetting. At this point, the brazing alloy filler wire is fed into the joint to produce the desired fillet.

In mechanical flame brazing, furnace brazing, or induction brazing, the alloy and flux are pre-placed. The joint area is then heated to allow the flux to melt and the brazing alloy to flow into the joint by capillary action.

Caution: Brazing may generate toxic fumes. Brazing should only be done in a place where any fumes generated can be exhausted.

**RESIDUE:** Flux will promote corrosive attack if residue is left on brazed aluminum assemblies. Good brazing practices dictate that all flux residue be removed from brazed parts. The residues of Amco 33 are easily removed by water. The removal of the residues is enhanced by the mechanical action of pressurized water spray.

**STORAGE AND HANDLING:** AMCO 33 has hygroscopic property and will absorb moisture and cake into hard lumps if exposed to ambient air for extended periods. The flux container should be kept sealed until used and when not in use.

**PACKAGING:** 5 lb jar; 35 lb pail; 150 lb drum.

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