



HILCO Brazing Fluxes are suitable for use on copper, brass, mild steel and most other common materials. Special purpose fluxes are available for brazing aluminium, cast iron and silver brazing alloys.

The application field of HILCO Brazing Fluxes strongly depend on the melting points of the various brazing alloys and varies between 450-900°C. In this respect we supply a number of brazing fluxes each having their typical application. Use of the wrong flux or a poor application technique can have a negative effect on the quality of the joint.

HILCO Brazing Fluxes are available in powder for only. These powders can be made into pastes by stirring in water until the mixture has the consistency of thick cream. HILCO Brazing Fluxes can be applied by hot prodding i.e. dipping a warm rod into flux powder and the flux adhering to the rod is transferred to the joint area.

A molten brazing alloy will only wet and flow over a parent metal if both are substantially free of surface oxide. Simply removing surface oxide before brazing is not effective, since a new oxide layer is rapidly formed on heating. To achieve a oxide free surface it is necessary to:

- Remove oxide as it is formed using a suitable brazing flux, or
- Prevent oxidation during brazing by heating in a protective atmosphere, or
- Use a self-fluxing brazing alloy (possible when copper-to-copper brazing only!)

Brazing Flux	Application	EN 1045	Temperature range	Packaging	To be used in combination with
Bronze flux	General purpose, brazing cast iron, steel, brass, bronze and copper	FH 21	750-1100°C	500 gr. jars	Bronze C
Aluminium flux	Brazing aluminium sheet and extruded shapes and corner joints	FH 11	550-800°C	500 gr. jars	AL Si 5, AL Si 12
Silver solder flux (F-flux)	Silver brazing, dissimilar joining copper to ...	FH 10	550-800°C	500 gr. jars	Silver brazing rods, Silver phosphorous rods

Flux residue removal

We recommend to remove flux residues after brazing, due to the danger of corrosive attack when the flux hydrolyses on exposure to moist air. The method of removal depends on the classification of the brazing flux.

Classification	Removal of residues
FH10, FH11	Residues are corrosive and have to be removed by washing or pickling
FH21	Residues are non-corrosive and have to be removed mechanically or by pickling