LUVATA
Partnerships beyond metals

UltraBraze™

Furnace Brazing Alloy

UltraBraze™ is specifically designed for furnace brazing applications and is especially effective in overcoming the challenges of large gap steel-to-steel brazing.

Delivering consistent brazing results with a single pass, UltraBraze's joint strength, wetting and filling characterists are superior compared with traditional CDA 102 or 110 alloys.

Advantages of using UltraBraze:

- Improved wetting into weld joints with reduced puddling and run-off
- Consistent, predictable results
- Improved joint quality, appearance and strength
- Increased productivity
- Cost savings associated with lower energy consumption, redundant operations and the elimination of flux or binder
- Less scrap and improved throughput

About Luvata
Luvata is a world leader in metal solutions manufacturing and related engineering services. Luvata's solutions are used in industries such as renewable energy, power generation, automotive, medicine, air-conditioning, industrial refrigeration, and consumer products. The company's continued success is attributed to its longevity, technological excellence and strategy of building partnerships beyond metals. Employing over 6,400 staff in 16 countries, Luvata works in partnership with customers such as Siemens, Toyota, CERN, and DWD International.

LUVATA
Partnerships beyond metals

Furnace brazing is a method of joining two or more pieces of metal, usually carbon or stainless steel, often using pure copper (CDA 102 or 110 alloy) or a paste mixture consisting of pure copper powder and a binder or flux. Problems with this method include puddling or run-off, which adversely affect the joint strength and deliver inconsistent results.

UltraBraze offers superior wetting and even flow, automatically adapting for gap variances to produce uniform fillets. In loose fit testing, as gaps increased the shear strength associated with UltraBraze increased >50%.

Using UltraBraze, instead of traditional CDA 102 and 110 alloys, eliminates the need for flux or binder along with the costs associated with rework and defects while deliverying consistent, predictable results.

Applications for UltraBraze:

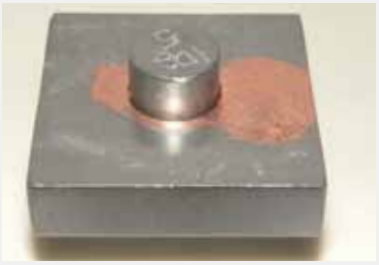
- Aircraft
- Automotive
  - Torque converters
  - Muffler hanger brackets
  - Fuel rails
- Lawn and Garden
- Marine
- Brazing various stampings, castings, machine screw and other piece part applications

Patent pending UltraBraze consists of 4.5% zinc, 2% iron and copper and is available in the following forms:

- Wire
- Rings
- Slugs

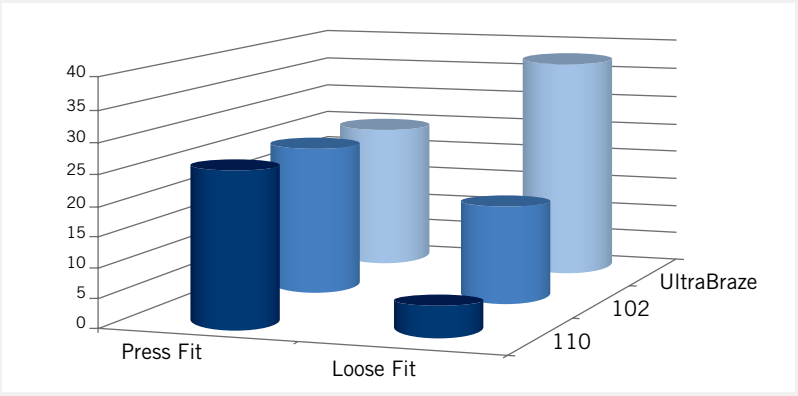
Test piece before brazing

110 Alloy



102 Alloy

UltraBraze



Comparison shear stress (ksi) in Press Fit and Loose Fit testing

Slugs

Rings

Luvata Appleton LLC
553 Carter Court
Kimberly, WI 54136, USA
Toll Free: +800 749 5510 or
Phone: +1 920 749 3820
Email: ultrabraze@luvata.com

UltraBraze Sales
Ultra Infiltrant
1868 Corniche Drive
Zionsville, IN 46077, USA
Toll Free: +888 858 7255
Phone: +1 317 319 9825

www.luvata.com