

COMPETITIVE ADVANTAGES

- A **simplified brazing process**: No need for stages of sintering or debinding;
- **No chemical modification of the compositions** before and during brazing (no interaction between the different pieces and the filler alloy before brazing);
- The **final brazing success is guaranteed**.

APPLICATIONS/MARKETS

- Manufacturing of preforms or pieces ready to be brazed;
- Simplified piping and solder quality assured;
- Copper pieces assembly.

INTELLECTUAL PROPERTY

- Patent FR 125469;
- Collaboration sought: License for process industrialization and for its marketing.

LABORATORY

- Institut Jean Lamour (IJL)

CONTACT

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PRESENTATION

This innovative brazing process for copper uses new composite materials made of agarose, containing a filler alloy and a flow. They can be shaped by molding by powders injection.

The absence of the usual sintering and debinding stages allows the brazed joints to have a **mechanical strength and a metallurgical quality similar to those obtained from conventional materials**.

The developed compositions allow soft brazing (SnPb) and hard brazing (CuP) of pieces containing copper, however, the **process could be extended to other materials**.

