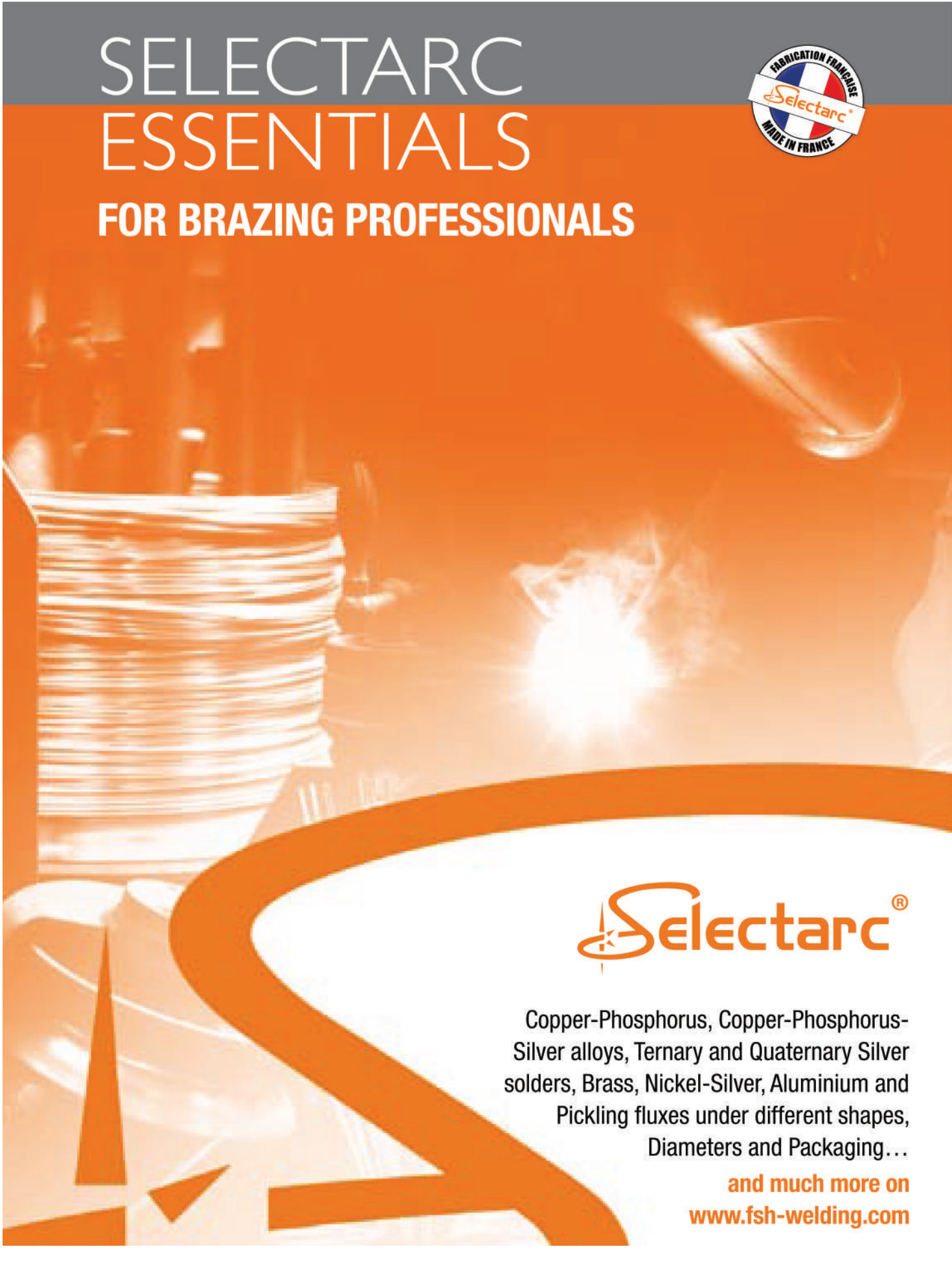


SELECTARC ESSENTIALS

FOR BRAZING PROFESSIONALS



Selectarc®

Copper-Phosphorus, Copper-Phosphorus-Silver alloys, Ternary and Quaternary Silver solders, Brass, Nickel-Silver, Aluminium and Pickling fluxes under different shapes, Diameters and Packaging...

and much more on
www.fsh-welding.com

WHAT IS BRAZING?

Brazing is a permanent metal-joining process which sets a metal continuity between close-fitting parts by capillary action. Brazing is done by atomic migration of both sides of the pieces to be joined obtained by heating.



It is important to note that, unlike welding, there is no melting of base metals. Only the filler metal melt and flow over the base metal (wetting).



Brazing is widely used as an assembly technique in all industries and in building trade.





SELECTION OF BRAZING ALLOY FOR SIMILAR & DISSIMILAR JOINTS

BASIC METAL	STEEL	ALUMINIUM	COPPER	CAST IRON (SLOW PREHEATING AND COOLING)	STAINLESS STEEL	BRASS	GALVANIZED STEEL	NICKEL
NICKEL	BRAZARGENT 5040*		BRAZARGENT 5040*	BRAZARGENT 5040*	BRAZARGENT 5040*	BRAZARGENT 5040*	BRAZARGENT 5040*	BRAZARGENT 5040*
	BRAZARGENT 5056*		BRAZARGENT 5056*	BRAZARGENT 5056*	BRAZARGENT 5056*	BRAZARGENT 5056*	BRAZARGENT 5056*	BRAZARGENT 5056*
GALVANIZED STEEL	CUPROX FC	ZINAL 4 TBW	CUPROX FC	CUPROX FC	BRAZARGENT 5040*	BRAZARGENT 5034*	CUPROX FC	
	BRAZARGENT 1520Si*	HARASIL NC 12 TBW	BRAZARGENT 5034*	BRAZARGENT 5034*	BRAZARGENT 5056*	BRAZARGENT 5040*	BRAZARGENT 5034*	
BRASS	BRAZARGENT 5034*	ZINAL 4 TBW	BRAZARGENT 5034*	BRAZARGENT 5040*	BRAZARGENT 5040*	BRAZARGENT 5034*		
	BRAZARGENT 5040*	HARASIL NC 12 TBW	PHOSBRAZ AG100 FC	BRAZARGENT 5056*	BRAZARGENT 5056*	PHOSBRAZ AG100 FC		
STAINLESS STEEL	BRAZARGENT 5040*	ZINAL 4 TBW	BRAZARGENT 5040*	BRAZARGENT 5040*	BRAZARGENT 5040*			
	BRAZARGENT 5056*	HARASIL NC 12 TBW	BRAZARGENT 5056*	BRAZARGENT 5056*	BRAZARGENT 5056*			
CAST IRON (SLOW PREHEATING AND COOLING)	CUPROX FC		CUPROX FC	CUPROX FC				
	BRAZARGENT 5040*		BRAZARGENT 5040*	BRAZARGENT 5040*				
COPPER	CUPROX FC	ZINAL 4 TBW	PHOSBRAZ M70 (standard joining)					
	BRAZARGENT 1520Si*	HARASIL NC 12 TBW	PHOSBRAZ M60 (special for pitting)					
ALUMINIUM	ZINAL 4 TBW	ZINAL 4 TBW						
	HARASIL NC 12 TBW	HARASIL NC 12 TBW						
STEEL	CUPROX FC							
	BRAZARGENT 1520Si*							

CHOICE

REF* : To be used with AG-FLUX, as flux coated rods, or as TBW

REF : flux cored or self-fluxing alloy

BRAZARGENT®, CUPROX®, PHOSBRAZ® ARE REGISTERED TRADEMARKS.

COPPER-PHOSPHORUS ALLOYS

Special range **sparkling free** for great ease in manual applications. This range was invented by André REBOUD, creator of Reboud-Roche plant.

CHOICE



■ Oven range:

Consult our technical department.

PHOSBRAZ M60

- ★ Low fluidity
- ★ Wide gaps up to 2 mm

PHOSBRAZ M70

- ★ Standard fluidity
- ★ Standard gap

PHOSBRAZ E80+

- ★ High fluidity
- ★ Very small gap

■ PHOSBRAZ M60

Alloy recommended for large gap joining, **low fluidity**, self-fluxing on red coppers (without addition of flux).

- **Standard colour:** copper.
- **Brazable grades:** Coppers.

MAIN APPLICATIONS

- ★ Brazing of Copper-Copper connections, mainly in plumbing industry.

Presentation	Ø (mm)	Length (mm)	Kg/case	Ref.
BARE	2.0	500	1	M6B20500R T180
			5	M6B20500R T200
BARE	3.0	500	1	M6B30500R T180
			5	M6B30500R T200

SPECIAL FITTING/ COPPER

Selectarc
BRAZING

+ PRODUCT ADVANTAGES:

- Low fluidity
- Good control in joint filling
- «Flexible» alloy
- Ideal for wide gaps up to 2 mm

ISO 17672
CuP 179

DIN 8513
L-Cu P6

RECOMMENDED HEATING METHOD:



■ PHOSBRAZ M70

Alloy recommended for standard joining (sleeves-fittings). **Good fluidity.** Self-fluxing on red coppers (without using flux).

- **Standard colour:** copper.
- **Brazable grades:** Coppers.

MAIN APPLICATIONS

★ Brazing of Copper-Copper connections, principally in the plumbing field.

Presentation	Ø (mm)	Length (mm)	Kg/case	Ref.
BARE	2.0	500	1	M70B20500R T180
			5	M70B20500R T200
BARE	3.0	500	1	M70B30500R T180
			5	M70B30500R T200

**UNDER CONTROL
FLUIDITY /
COPPER**

Selectarc
BRAZING

+ PRODUCT ADVANTAGES:

- Good fluidity
- High speed working
- Universal alloy in plumbing

ISO 17672
CuP 180

DIN 8513
L-Cu P7

AWS A5.8
B Cu-P 2

RECOMMENDED HEATING METHOD:



■ PHOSBRAZ E80+

Alloy recommended for small gaps with deep & close overlap between tubes. **Product with high fluidity.** Self-fluxing on red coppers (without addition of flux).

- **Standard colour:** copper.
- **Brazable grades:** Coppers.

MAIN APPLICATIONS

★ Brazing of copper to copper and copper to brass connections, mainly in plumbing.

Presentation	Ø (mm)	Length (mm)	Kg/case	Ref.
BARE	2.0	500	1	E8+B20500R T180
			5	E8+B20500R T200
BARE	3.0	500	1	E8+B30500R T180
			5	E8+B30500R T200

**EXCELLENT
FLUIDITY /
COPPER**

Selectarc
BRAZING

+ PRODUCT ADVANTAGES:

- High capillarity on small gaps
- Low brazing temperatures
- Big overlaps
- Can be used with an aero-propane flame*

ISO 17672
CuP 182

DIN 8513
L-Cu P8

RECOMMENDED HEATING METHOD:



*Subject to testing, under customer responsibility.

View our full range on www.fsh-welding.com!

COPPER - PHOSPHORUS ALLOYS

COPPER - PHOSPHORUS - SILVER ALLOYS

CHOICE

PHOSBRAZ AG20+

- ★ Universal
- ★ Economical

PHOSBRAZ AG50+

- ★ Easy to use
- ★ Good resistance to mechanical vibrations

PHOSBRAZ AG60

- ★ Copper pipes

PHOSBRAZ AG100 FLUX COATED

- ★ Copper-Brass assembly
- ★ Excellent technical and economical compromise

PHOSBRAZ AG150

- ★ Electrical connections

■ PHOSBRAZ AG20+

This alloy recommended for standard joining with a **standard fluidity** and is self-fluxing on red coppers. This shade has **2% Ag in addition to Phosphorus for a better capillarity.**

■ **Brazable grades:** Coppers.

MAIN APPLICATIONS

- ★ Copper-Copper joining in sleeve coupling and fittings, heat exchangers (hot/cold) and ventilation systems.

Presentation	Ø (mm)	Length (mm)	Kg/case	Ref.
BARE	2.0	500	1	AG20+B20500R T180
			5	AG20+B20500R T200
BARE	3.0	500	1	AG20+B30500R T180
			5	AG20+B30500R T200

UNIVERSAL /
COPPER
2% Ag

Selectarc
BRAZING

+ PRODUCT ADVANTAGES:

- Versatile alloy
- Good fluidity
- The most economical of the Copper-Phosphorus-Silver range
- Easy to use

ISO 17672
CuP 280

AWS A5.8
BCuP-6

RECOMMENDED HEATING METHOD:



■ PHOSBRAZ AG50+

Alloy with **5% Ag** in addition Phosphorus for a better capillarity is recommended for all assemblies and particularly for air conditioning. Its main features are: **good ductility and very good fluidity**. This product is self-fluxing on red coppers.

■ **Brazable grades:** Coppers.

MAIN APPLICATIONS

★ Copper-Copper joining in sleeve coupling and fittings, heat exchangers (hot/cold) and ventilation systems and compressors.

Presentation	Ø (mm)	Length (mm)	Kg/case	Ref.
BARE	2.0	500	1	AG50+B20500R T180
			5	AG50+B20500R T200
BARE	3.0	500	1	AG50+B30500R T180
			5	AG50+B30500R T200

**SPECIAL COLD /
VIBRATIONS /
COPPER
5% Ag**

 **SELECTARC**
BRAZING

+ PRODUCT ADVANTAGES:

- Resistance to mechanical vibrations and water hammer, better than a CuP
- Very good fluidity
- Brazing temperature is lower than AG20

ISO 17672
CuP 282

AWS A5.8
BCuP-7

RECOMMENDED HEATING METHOD:



■ PHOSBRAZ AG60

Copper-Phosphorus alloy with **6% Ag** for hard brazing of red coppers. It is recommended for gas systems (except local regulation) and piping systems. It can be used with propane gas*.

■ **Standard colour:** copper.

■ **Brazable grades:** Coppers.

MAIN APPLICATIONS

★ Piping and combustible gas installations.

Presentation	Ø (mm)	Length (mm)	Kg/case	Ref.
BARE	2.0	500	1	AG60B20500R T180A
			5	AG60B20500R T200A
BARE	3.0	500	1	AG60B30500R T180A
			5	AG60B30500R T200A

**PIPING /
COPPER
6% Ag**

 **SELECTARC**
BRAZING

+ PRODUCT ADVANTAGES:

- High fluidity
- Low melting temperature
- Excellent wetting properties and capillarity

ISO 17672
CuP 283a

RECOMMENDED HEATING METHOD:



*Subject to testing, under customer responsibility.

■ PHOSBRAZ AG100

FLUX COATED

Alloy with **10 % Ag** recommended for Copper-Copper joining, Copper alloys (Brass...). Very good fluidity. This alloy of exceptional performance represents the **"Global economic solution" for Copper/Brass assemblies.**

■ **Brazable grades:** Copper and Copper alloys (ex: Brass).

MAIN APPLICATIONS

★ Brazing of brass connections on copper piping.

Presentation	Ø (mm)	Length (mm)	Kg/case	Ref.
WHITE COATING	2.0	500	1	AG100E20500B/S25AG T190 (Printed Rods)
			5	AG100E20500B/S25AG T200 (Printed Rods)

COPPER / BRASS ASSEMBLIES
10 % Ag

Selectarc
BRAZING

[NEW PRODUCT]

+ PRODUCT ADVANTAGES:

- Alloy ready for use
- Excellent compromise between fluidity & ductibility
- Excellent wetting properties
- Can be used with propane gas*

FLUX EN 1045
FH10

RECOMMENDED HEATING METHOD:



*Subject to testing, under customer responsibility.

■ PHOSBRAZ AG150

Alloy recommended for assembly with intermediary gap. **Standard fluidity**, Self-fluxing on red coppers. **Silver content: 15 %.**

■ **Brazable grades:** Coppers.

MAIN APPLICATIONS

★ Copper-Copper assemblies, Electric motor production, Electrical connections, air conditioning.

Presentation	Ø (mm)	Length (mm)	Kg/case	Ref.
BARE	2.0	500	1	AG150B20500R T180
			5	AG150B20500R T200
BARE	3.0	500	1	AG150B30500R T180
			5	AG150B30500R T200

ELECTRICAL CONNECTIONS /
COPPER
15 % Ag

Selectarc
BRAZING

+ PRODUCT ADVANTAGES:

- Excellent electrical conductivity
- Ductile alloy
- Very good mechanical resistance
- Allows the filling of important gaps

ISO 17672
CuP 284

DIN 8513
L-Ag 15 P

AWS A5.8
BCuP-5

RECOMMENDED HEATING METHOD:

