

# Manufacturer of technical & tailored products for brazing





TECHNOLOGIES FOR BRAZING

## Alloys filler metals and flux cored

SOBRACORE<sup>®</sup> is specialized in manufacturing aluminum/silicon, zinc/aluminum, copper based and silver alloys. The SOBRACORE<sup>®</sup> brazing consumable range was developed to meet the most demanding needs in all sectors of industry. Our team of experts is available to answer all your questions but also to support you in all your soldering projects. SOBRACORE<sup>®</sup> supply various forms and sizes: solid and cored wires, rods, rings, preforms, powder, paste, coated rods.

# For every type of brazing

SOBRACORE® products are usable with all brazing technologies: induction, flame, furnace, resistance

### Aluminum/silicon, zinc/aluminum alloys

Aluminum/silicon and zinc/aluminum alloys are especially developed to join aluminum alloys to similar or dissimilar metals (copper, stainless steel, etc.).

Non corrosive flux cored wires

211 - E	A	lloy Co	mposi	tion %	Melting F	Range (°C)	Standard		
Product	AI	Si	Zn	Other(s)	Solidus	Liquidus	EN 1044	ISO 17672	
SOBAL 12	88	12	_	-	575	585	AL 104	AL 112	
SOBAL 2	2	-	98	-	382	407	-	-	
SOBAL15	15	-	85		420	475		-	
SOBAL 22	22	-	78		420	469	-	14 1 <del>-</del>	

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### Aluminum/silicon, zinc/aluminum fluxes

Product	Brazing Tomp	Brazina		Non	Standard			Plastic
	Brazing Temp. (°C)	Brazing Alloys	Corrosive	Corrosive	EN/ISO 17672	Powder	Paste	Box
SOBAL-FLUX C	530 - 620	AlSi	×		FL10	x	x	х
SOBAL-FLUX N	555 - 600	AlSi		х	FL20	x	x	x
SOBAL-FLUX CS	420 - 450	ZnAl		x	FL20	x	x	x

### Copper/phosphorus alloys

Copper/phosphorus alloys are exclusively intended for the brazing of copper and its alloys. They are self-fluxing on copper. For brass, we recommend you use SOPHOS-FLUX.

Product	Melting F	Range (°C)	Alloy	y Comp	osition	Standard		
	Solidus	Liquidus	Cu	Ph	Other	EN 1044	EN ISO 3677	
SOPHOS 6	710	860	Bal.	6,0	-	CP 203	B Cu 94 P 710-860	
SOPHOS 7	710	805	Bal.	7,0	-	CP 202	B Cu 93 P 710-805	
SOPHOS 8	710	750	Bal.	8,0	-	CP 201	B Cu 92 P 710-750	
SOPHOS Sn	650	700	Bal.	6,7	7,0 (Sn)	CP 302	B Cu 86 Sn P 650-700	

### Copper/phosphorus silver alloys

The silver content of these alloys increases significantly the mechanical characteristics of brazed joints. These alloys are used for the brazing of copper connector fittings in electrical and refrigeration industries, etc.

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NUTRING AND A DESCRIPTION	Melting I	Range (°C)	Chen	nical An	alysis		Standard
Product	Solidus	Liquidus	Cu	Ph	Ag	EN 1044	EN ISO 3677
SOPHOS AG1	640	820	Bal.	6,5	1,0	-	B Cu93PAg 640-820
SOPHOS AG2	640	790	Bal.	6,5	2,0	CP 105	B Cu91PAg 640-790
SOPHOS AG5	640	810	Bal.	6,0	5,0	CP 104	B Cu89PAg 640-810
SOPHOS AG15	640	800	Bal.	5,0	15,0	CP 102	B Cu80AgP 640-800
SOPHOS AG18	6	545	Bal.	7,0	18,0	CP 101	B Cu75AgP 645

### Copper/phosphorus & Copper/phosphorus/silver fluxes

Product			Standard			
	Brazing Temp. (°C)	Brazing Alloys	EN/ISO 17672	Powder	Paste	Plastic Box
SOPHOS-FLUX	600 - 850	CuPh / CuPhAg	FH 10	х	x	x



### Brass brazing alloys

#### SOBRAS L

The brass-brazing alloy "SOBRAS L" is used for the assembly of grey cast irons, construction steels and galvanized steel, copper, nickel and alloys.

#### SOBRAS N

This alloy is used to braze high strength materials (alloy steels up to 900 N/mm, carbide inserts on cutting tools).



riouuci	Melting F	Range (°C)	Alloy Composition				Standard		
	Solidus	Liquidus	Cu	Zn	Si	Ni	EN 1044	EN ISO 3677	
SOBRAS L	870	900	60,0	Bal.	0,3	-	CU 304	B Cu60ZnSi 870-900	
SOBRAS N	890	920	48,0	Bal.	0,3	10,0	CU 305	B Cu48ZnNiSi 870-900	

~					Bra	ass flux
Product	Brazing Temp. (°C)	Brazing Alloys	Standard EN/ISO 17672	Powder	Paste	Plastic Bo
SOBRAS-FLUX	750 - 1000	Steel, Cast Iron	FH 20	×	x	×

## Silver alloys

These alloys can be supplied as plain rods, coated rods, cored wires, rings, preforms, wire on spool, powder and pastes.

Alloys with high silver content for brazing ferrous alloys, copper alloys and stainless steel pieces.

The very high fluidity of these alloys and their good mechanical characteristics provide a large scope of application in various business sectors: fitting, faucet factory, electrical equipment, water heater, maintenance...

	Melting R	ange (°C)	Alloy Composition			St	andard		
Product*	Solidus	Liquidus	Ag	Cu	Zn	Sn	Others	EN 1044	EN ISO 3677
SOBAG 20	730	785	20	55	33	2,0		-	-
SOBAG 25	680	760	25	40	33	2,0		AG 108	B Cu40ZnAgSn 680-760
SOBAG 30	665	755	30	36	32	2,0		AG 107	B Cu36ZnAgSn 665-755
SOBAG 34	630	730	34	36	27	3,0		AG 106	B Cu36ZnAgSn 630-730
SOBAG 40	650	710	40	30	28	2,0		AG 105	B Ag40CuZnSn 650-710
SOBAG 45	640	680	45	27	25	3,0		AG 104	B Ag45CuZnSn 640-680
SOBAG 50	660	75	50	24	28		Ni2	-	-
SOBAG 56	630	660	56	22	17	5,0		AG 102	-
SOBAG 72	7	78	72	28				AG 401	-

\* Silver Alloys with cadmium on request



#### Silver fluxes

## Company

The French company SOBRACORE<sup>®</sup> develops and manufactures high value-added brazing products, allowing the assembly of identical or different metals. Developed according to a fine technology and an unpublished design, SOBRACORE<sup>®</sup> brand products meet the needs of following business sectors:

- Automotive industry
- Refrigeration appliance and air conditioning
- Construction
- Aerospace industry
- Jewelry and art crafts
- Machinery

Our company proposes its own factory production and its technical know-how.

## Expertise

- Understand the process of the customers
- Study according to specifications
- Choice of products according to configuration of assembly : tubes/fitting tubes/tubes - tubes/plates
- Trials : follow-up at your site
- Technical service to assist customers to reduce the cost of their process

## Advantages

- The control of the product from the conception, integrated manufacturing, development and the use by customers
- Tailor made products for special needs
- High quality products
- Diverse product parameters: width, thickness, percentage of components, aspect, resistance
- Easy operating for the end user

## Multiple applications

Brazing products from SOBRACORE® are particularly suitable for production and repair of heat exchangers, condensers, radiators, for assembling metallic tubes or developing fine and small complex metallic pieces.





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