

## TECHNICAL DATA SHEET

### SPARK311LB - 585 ‰

Master alloy for the production of yellow 375 - 417 - 585 ‰ gold jewellery obtained by investment casting. The elements contained in this product ensure a high deoxidation in casting and a high surface quality, making it suitable for castings with and without stones in place.

TAB.1 - Mechanical data

Hardness as cast	125	HV
Hardness hardened	n.d.	
Tensile strength	284	MPa
Yield strength	183	MPa
Elongation	n.d.	

TAB.2 - Physical data

Color	Deep yellow		
Colour Coordinates	L*:	89.32	
	a*:	4.71	
	b*:	18.55	
Density	12.81	g/cm <sup>3</sup>	
Melting Range	Solidus:	852	°C
	Liquidus:	892	°C

TAB.3 - Heat treatments

Solution annealing	675 20	°C min
Recrystallization Annealing	675 20	°C min
Hardening	275	°C
	180	min

TAB.4 - Investment casting parameters

Premelting temperature		992	°C
Casting Temperature	Min: Max:	942 1042	°C °C
Water investment powder ratio		36-38	%
Flask temperature	Min: Max:	450 700	°C °C
Quenching time without stones in place	Min: Max:	5 20	min min
Quenching time with stones in place		15	min in boiling water
Pickling	H2SO4: Temp: Time:	20 50 50	% °C min