

## TECHNICAL DATA SHEET

### SPARK682H + Ag31% - 585 ‰

Master alloy for the production of yellow 585 - 750 ‰ 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. The use is suggested with the addition of 20 - 40 % of pure silver to the master alloy.

TAB.1 - Mechanical data

Hardness as cast	161	HV
Hardness hardened	254	HV
Tensile strength	402	MPa
Yield strength	295	MPa
Elongation	39	%

TAB.2 - Physical data

Color	Hamilton yellow		
Colour Coordinates	L*:	90.55	
	a*:	2.52	
	b*:	19.09	
Density	14.87	g/cm <sup>3</sup>	
Melting Range	Solidus:	784	°C
	Liquidus:	831	°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		931	°C
Casting Temperature	Min:	881	°C
	Max:	981	°C
Water investment powder ratio		36-38	%
Flask temperature	Min:	450	°C
	Max:	700	°C
Quenching time without stones in place	Min:	5	min
	Max:	20	min
Quenching time with stones in place		15	min in boiling water
Pickling	H2SO4:	20	%
	Temp:	50	°C
	Time:	50	min