

## TECHNICAL DATA SHEET

### SPARK687H + Ag40% - 750 ‰

Master alloy for the production of yellow 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 30 - 50 % of pure silver to the master alloy.

TAB.1 - Mechanical data

Hardness as cast	143	HV
Hardness hardened	260	HV
Tensile strength	335	MPa
Yield strength	220	MPa
Elongation	40	%

TAB.2 - Physical data

Color	Deep yellow		
Colour Coordinates	L*:	88.40	
	a*:	4.65	
	b*:	22.30	
Density	15.29	g/cm <sup>3</sup>	
Melting Range	Solidus:	870	°C
	Liquidus:	880	°C

TAB.3 - Heat treatments

Solution annealing	650 20	°C min
Recrystallization Annealing	650 20	°C min
Hardening	275	°C
	180	min

TAB.4 - Investment casting parameters

Premelting temperature		980	°C
Casting Temperature	Min: Max:	930 1030	°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