

## TECHNICAL DATA SHEET

### SPARK345H - 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.

TAB.1 - Mechanical data

Hardness as cast	158	HV
Hardness hardened	261	HV
Tensile strength	337	MPa
Yield strength	248	MPa
Elongation	39	%

TAB.2 - Physical data

Color	2N yellow		
Colour Coordinates	L*:	89.53	
	a*:	3.63	
	b*:	22.58	
Density	15.32	g/cm <sup>3</sup>	
Melting Range	Solidus:	842	°C
	Liquidus:	870	°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		970	°C
Casting Temperature	Min: Max:	920 1020	°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