

## TECHNICAL DATA SHEET

### SPARK740A - 750 ‰

Master alloy for the production of white palladium based 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	141	HV
Hardness hardened	n.d.	
Tensile strength	320	MPa
Yield strength	138	MPa
Elongation	40	%

TAB.2 - Physical data

Color	Standard white		
Colour Coordinates	L*:	81.9	
	a*:	2.1	
	b*:	10.8	
Density	16.05	g/cm <sup>3</sup>	
Melting Range	Solidus:	990	°C
	Liquidus:	1055	°C

TAB.3 - Heat treatments

Solution annealing	800 30	°C min
Recrystallization Annealing	800 30	°C min
Hardening	500	°C
	180	min

TAB.4 - Investment casting parameters

Premelting temperature		1155	°C
Casting Temperature	Min:	1105	°C
	Max:	1205	°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