

TECHNICAL DATA SHEET

SPARK725A - 585 ‰

Master alloy for the production of white palladium based 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.

TAB.1 - Mechanical data

Hardness as cast	115	HV
Hardness hardened	142	HV
Tensile strength	367	MPa
Yield strength	262	MPa
Elongation	15	%

TAB.2 - Physical data

Color	Off-white	
Colour Coordinates	L*:	82.10
	a*:	1.14
	b*:	12.61
Density	14.43	g/cm ³
Melting Range	Solidus:	983 °C
	Liquidus:	1088 °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		1188	°C
Casting Temperature	Min:	1138	°C
	Max:	1238	°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