

TECHNICAL DATA SHEET

SPARK772B + Pd25% - 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. The use is suggested with the addition of 20 - 30 % of pure palladium to the master alloy.

TAB.1 - Mechanical data

Hardness as cast	156	HV
Hardness hardened	270	HV
Tensile strength	348	MPa
Yield strength	184	MPa
Elongation	39	%

TAB.2 - Physical data

Color	Off-white		
Colour Coordinates	L*:	83.45	
	a*:	2.21	
	b*:	15.21	
Density	15.74	g/cm ³	
Melting Range	Solidus:	950	°C
	Liquidus:	1000	°C

TAB.3 - Heat treatments

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

TAB.4 - Investment casting parameters

Premelting temperature		1100	°C
Casting Temperature	Min:	1050	°C
	Max:	1150	°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