

TECHNICAL DATA SHEET

SPARK680L + Ag20% - 417 ‰

Master alloy for the production of yellow 375 - 417 - 585 ‰ 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 10 - 30 % of pure silver to the master alloy.

TAB.1 - Mechanical data

Hardness as cast	118	HV
Hardness hardened	220	HV
Tensile strength	352	MPa
Yield strength	157	MPa
Elongation	47	%

TAB.2 - Physical data

Color	Pale yellow		
Colour Coordinates	L*:	91.45	
	a*:	1.06	
	b*:	18.41	
Density	11.42	g/cm ³	
Melting Range	Solidus:	778	°C
	Liquidus:	863	°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		963	°C
Casting Temperature	Min:	913	°C
	Max:	1013	°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