

TECHNICAL DATA SHEET

SPARK680L + Ag20% - 585 ‰

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	141	HV
Hardness hardened	194	HV
Tensile strength	330	MPa
Yield strength	211	MPa
Elongation	46	%

TAB.2 - Physical data

Color	Hamilton yellow		
Colour Coordinates	L*:	89.61	
	a*:	2.69	
	b*:	19.24	
Density	12.92	g/cm ³	
Melting Range	Solidus:	816	°C
	Liquidus:	865	°C

TAB.3 - Heat treatments

Solution annealing	675 20	°C min
Recrystallization Annealing	675 20	°C min
Hardening	275 180	°C min

TAB.4 - Investment casting parameters

Premelting temperature		965	°C
Casting Temperature	Min: Max:	915 1015	°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