

TECHNICAL DATA SHEET

SPARK678LC + Ag5% - 585 ‰

Master alloy for the production of yellow 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 0 - 20 % of pure silver to the master alloy.

TAB.1 - Mechanical data

Hardness as cast	101	HV
Hardness hardened	n.d.	
Tensile strength	284	MPa
Yield strength	143	MPa
Elongation	55	%

TAB.2 - Physical data

Color	Hamilton yellow		
Colour Coordinates	L*:	90	
	a*:	2.14	
	b*:	19.11	
Density	12.62	g/cm ³	
Melting Range	Solidus:	816	°C
	Liquidus:	866	°C

TAB.3 - Heat treatments

Solution annealing	612 20	°C min
Recrystallization Annealing	612 20	°C min
Hardening	n.d. n.d.	

TAB.4 - Investment casting parameters

Premelting temperature		966	°C
Casting Temperature	Min:	916	°C
	Max:	1016	°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