

TECHNICAL DATA SHEET

SPARK319 - 375 ‰

Master alloy for the production of yellow 375 - 417 - 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	120	HV
Hardness hardened	n.d.	
Tensile strength	400	MPa
Yield strength	180	MPa
Elongation	44	%

TAB.2 - Physical data

Color	Deep yellow		
Colour Coordinates	L*:	90.35	
	a*:	3.5	
	b*:	17.28	
Density	11.2	g/cm ³	
Melting Range	Solidus:	765	°C
	Liquidus:	870	°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		970	°C
Casting Temperature	Min:	920	°C
	Max:	1020	°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