

TECHNICAL DATA SHEET

SPARK471I - 930 ‰

Master alloy for the production of 930 ‰ sterling silver 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	70	HV
Hardness hardened	127	HV
Tensile strength	210	MPa
Yield strength	82	MPa
Elongation	53	%

TAB.2 - Physical data

Color	Silver		
Colour Coordinates	L*:	95.39	
	a*:	-0.34	
	b*:	5.82	
Density	10.27	g/cm ³	
Melting Range	Solidus:	803	°C
	Liquidus:	900	°C

TAB.3 - Heat treatments

Solution annealing	650 30	°C min
Recrystallization Annealing	650 30	°C min
Hardening	300	°C
	180	min

TAB.4 - Investment casting parameters

Premelting temperature		1000	°C
Casting Temperature	Min: Max:	950 1050	°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 10	min min
Quenching time with stones in place		15	min in boiling water
Pickling	H2SO4: Temp: Time:	20 50 50	% °C min