

TECHNICAL DATA SHEET

STAR196R - 750 ‰

Universal master alloy for the production of red 375 - 417 - 585 - 750 ‰ gold jewellery obtained by investment casting and mechanical working. The elements contained in this product ensure a high surface quality in investment casting, while in mechanical working a high deformation capability thanks the small grain structure, making it suitable for the production of hand and machine made hollow and solid chains, deep drawn items and tube.

TAB.1 - Mechanical data

Hardness as cast	200	HV
Hardness hardened	313	HV
Tensile strength	600	MPa
Yield strength	398	MPa
Elongation	22	%

TAB.2 - Physical data

Color	6N red		
Colour Coordinates	L*:	85.10	
	a*:	9.55	
	b*:	15.4	
Density	14.77	g/cm ³	
Melting Range	Solidus:	910	°C
	Liquidus:	918	°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		1018	°C
Casting Temperature	Min: Max:	968 1068	°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

TAB.5 - Mechanical working parameters

Premelting temperature		1018	°C
Casting Temperature	Min: Max:	968 1068	°C °C
First thickness reduction	Lamination: Drawing:	50 25	% %
Following thickness reductions	Lamination: Drawing:	75 50	% %
Pickling after annealing	H2SO4: Temp: Time:	20 50 5	% °C min