METALTECH
THE POWER OF RESULTS
Metaltech srl | Via Saviabona 113/G | 36010 | Cavazzale di Monticello Conte Otto (VI) | ITALIA
C.F. e P.IVA 03955300243 | Reg. Imprese VI: 03955300243 | REA: VI - 367516 | Cap. Soc. € 10.000,00 i.v.

TECHNICAL DATA SHEET

STAR193H_GD - 750 ‰

Universal master alloy for the production of red 750 - 875 - 917 ‰ 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	223	HV
Hardness hardened	322	HV
Tensile strength	584	MPa
Yield strength	374	MPa
Elongation	28	%

TAB.2 - Physical data

Color		Deep red	
Colour Coordinates	L*: a*: b*:	85.48 9.44 16.02	
Density		16.72	g/cm3
Melting Range		900 906	°C °C

TAB.3 - Heat treatments

Solution annealing	675 20	°C
Recrystallization Annealing	700 30	°C
Hardening	275 180	°C

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TAB.4 - Investment casting parameters

Premelting temperature		1006	°C
Casting Temperature	Min: Max:	956 1056	°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	
Quenching time with stones in place		15	
Pickling	H2SO4: Temp.: Time:	20 50 50	% °C

TAB.5 - Mechanical working parameters

Premelting temperature		1006	°C
Casting Temperature	Min: Max:	956 1056	°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