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

STAR731A - 750 ‰

Universal master alloy for the production of white palladium based 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	175 HV
Hardness hardened	290 HV
Tensile strength	445 MPa
Yield strength	24 MPa
Elongation	21 %

TAB.2 - Physical data

Color	Standard white
Colour Coordinates	L*: 82.55 a*: 2.10 b*: 13.88
Density	17.10 g/cm3
Melting Range	Solidus: 970 °C Liquidus: 1020 °C

TAB.3 - Heat treatments

Solution annealing	800 °C - 30 min
Recrystallization Annealing	800 °C - 20 min
Hardening	500 °C - 180 min

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TAB.4 - Investment casting parameters

Premelting temperature	1120 °C
Casting Temperature	Min: 1070 °C Max: 1170 °C
Water investment powder ratio	36 - 38 %
Flask temperature	Min: 600 °C Max: 720 °C
Quenching time without stones in place	Min: 5 minMax: 20 min
Quenching time with stones in place	15 min in boiling water
Pickling	H2SO4: 20 %Temp: 50 °C - 5 min

TAB.5 - Mechanical working parameters

Premelting temperature	1120 °C
Casting Temperature	Min: 1070 °C Max: 1170 °C
First thickness reduction	Lamination: 50 % Drawing: 25 %
Following thickness reductions	Lamination: 75 % Drawing: 50 %
Pickling after annealing	H2SO4: 20 % Temp: 50 °C - 5 min