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

WHITECH2052M - 750 ‰

Master alloy for the production of white nickel free 750 ‰ gold jewellery obtained by mechanical working. This product, thanks to its complex composition made of numerous different special elements, ensures an extreme quality, an enhanced fluidity and a long lasting of this features also after many reuses of scraps, making it the most advanced nichel free master alloy for white gold.

TAB.1 - Mechanical data

Hardness as cast	195	HV
Hardness hardened	n.d.	
Tensile strength	n.d.	
Yield strength	n.d.	
Elongation	n.d.	

TAB.2 - Physical data

Color	Premium white		
Colour Coordinates	L*: a*: b*:	80.50 2.00 6.50	
Density		15.94	g/cm3
Melting Range	Solidus: Liquidus:	1000 1050	°C °C

TAB.3 - Heat treatments

Solution annealing	750 30	°C min
Recrystallization Annealing	800 30	°C min
Hardening	n.d.	

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.

TAB.4 - Mechanical working parameters

Premelting temperature			see paragraph below
Casting Temperature	Min: Max:	1100 1200	°C °C
First thickness reduction	Lamination: Drawing:	50 25	% %
Following thickness reductions	Lamination: Drawing:	75 50	% %
Pickling after annealing			see paragraph below

PREMELTING (MANDATORY)
A premelting of the master alloy and fine gold must be done to homogenize the alloy in the best way. For a proper premelting, first put the fine gold in the crucible and then switch on the power until 1100°C (make sure that the metal becomes liquid). After this, put the master alloy inside the liquid gold and, with a stirrer, push down the master alloy inside the gold, then decrease the temperature to 950-1000°C and pour into an ingot or do a granulation.

PICKLING
For a proper pickling, use a concentrated solution of sulfuric acid at 60 - 65°C for 20 mins or a 50 % solution of hydrochloric acid at 60 – 65° C for 10 min.