



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 PRIMA310L - 917 %

Master alloy for the production of yellow 375 - 417 - 585 - 917 ‰ gold jewellery obtained by investment casting. This product, thanks to its complex composition made of numerous different special elements, ensures an extreme level of deoxidation, an extreme surface quality, an enhanced fluidity and a long lasting of this features also after many reuses of casting scraps, making it the most advanced solution for castings with and without stones in place.

## TAB.1 - Mechanical data

| Hardness as cast      | 80 HV                              |  |  |  |  |
|-----------------------|------------------------------------|--|--|--|--|
| Hardness hardened     | n.d.                               |  |  |  |  |
| Tensile strength      | n.d.                               |  |  |  |  |
| Yield strength        | n.d.                               |  |  |  |  |
| Elongation            | n.d.                               |  |  |  |  |
| TAB.2 - Physical data |                                    |  |  |  |  |
| Color                 | Deep yellow                        |  |  |  |  |
| Colour Coordinates    | L*: 86.87<br>a*: 7.53<br>b*: 24.26 |  |  |  |  |
| Density               | 17.83 g/cm3                        |  |  |  |  |

## TAB.3 - Heat treatments

Melting Range

| Solution annealing          | 675<br>20 | °C<br>min |
|-----------------------------|-----------|-----------|
| Recrystallization Annealing | 675<br>20 | °C<br>min |
| Hardening                   | n.d.      |           |

Solidus:

Liquidus:

917











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## TAB.4 - Investment casting parameters

| Premelting temperature                 |                          | 1048           | °C                      |
|--|--------------------------|----------------|-------------------------|
| Casting Temperature                    | Min:<br>Max:             | 998<br>1098    | ္င                      |
| Water investment powder ratio          |                          | 36-38          | %                       |
| Flask temperature                      | Min:<br>Max:             | 450<br>700     | °C<br>°C                |
| Quenching time without stones in place | Min:<br>Max:             | 5<br>20        | min<br>min              |
| Quenching time with stones in place    |                          | 15             | min<br>in boiling water |
| Pickling                               | H2SO4:<br>Temp:<br>Time: | 20<br>50<br>50 | %<br>°C<br>min          |