

TECHNICAL DATA SHEET

PRIMA215AIB - 417 ‰

Master alloy for the production of white 375 - 417 - 585 ‰ 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 | 162 | HV |
| Hardness hardened | 223 | HV |
| Tensile strength | 652 | MPa |
| Yield strength | 467 | MPa |
| Elongation | 25 | % |

TAB.2 - Physical data

| Color | Premium white | | |
|--------------------|---------------|-------------------|----|
| Colour Coordinates | L*: | 87.14 | |
| | a*: | -0.11 | |
| | b*: | 8.99 | |
| Density | 12.02 | g/cm ³ | |
| Melting Range | Solidus: | 851 | °C |
| | Liquidus: | 912 | °C |

TAB.3 - Heat treatments

| | | |
|-----------------------------|-----------|-----------|
| Solution annealing | 675 20 | °C min |
| Recrystallization Annealing | 675 20 | °C min |
| Hardening | 300 | °C |
| | 180 | min |

TAB.4 - Investment casting parameters

| | | | |
|--|--------------------------|----------------|-------------------------|
| Premelting temperature | | 1012 | °C |
| Casting Temperature | Min: Max: | 962 1062 | °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 |