

TECHNICAL DATA SHEET

SPARK324LI - 417 ‰

Master alloy for the production of yellow 375 - 417 - 585 - 750 - 917 ‰ gold jewellery obtained by investment casting. The elements contained in this product ensure a high deoxidation in casting and a high surface quality, making it suitable for castings with and without stones in place.

TAB.1 - Mechanical data

| | | |
|-------------------|-----|-----|
| Hardness as cast | 130 | HV |
| Hardness hardened | 257 | HV |
| Tensile strength | 380 | MPa |
| Yield strength | 175 | MPa |
| Elongation | 42 | % |

TAB.2 - Physical data

| | | | |
|--------------------|-------------|-------------------|----|
| Color | Pale yellow | | |
| Colour Coordinates | L*: | 90.58 | |
| | a*: | 3.41 | |
| | b*: | 17.79 | |
| Density | 11.55 | g/cm ³ | |
| Melting Range | Solidus: | 798 | °C |
| | Liquidus: | 881 | °C |

TAB.3 - Heat treatments

| | | |
|-----------------------------|-----------|-----------|
| Solution annealing | 675 20 | °C min |
| Recrystallization Annealing | 675 20 | °C min |
| Hardening | 275 | °C |
| | 180 | min |

TAB.4 - Investment casting parameters

| | | | |
|--|--------------------------|----------------|-------------------------|
| Premelting temperature | | 981 | °C |
| Casting Temperature | Min: Max: | 931 1031 | °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 |