

## TECHNICAL DATA SHEET

### SPARK598 - Au1kt

Brass for the production of jewels and models obtained by investment casting. The elements contained in this product ensure a high deoxidation after casting and a high surface quality, making it suitable for castings with and without stones in place.

TAB.1 - Mechanical data

|                   |        |
|-------------------|--------|
| Hardness as cast  | 100 HV |
| Hardness hardened | n.d.   |
| Tensile strength  | n.d.   |
| Yield strength    | n.d.   |
| Elongation        | n.d.   |

TAB.2 - Physical data

|                    |                                      |
|--------------------|--------------------------------------|
| Color              | Deep red                             |
| Colour Coordinates | L*: 88.22<br>a*: 6.24 b*: 14.41      |
| Density            | 9.49 g/cm <sup>3</sup>               |
| Melting Range      | Solidus: 950 °C<br>Liquidus: 1000 °C |

TAB.3 - Heat treatments

|                             |                 |
|-----------------------------|-----------------|
| Solution annealing          | 680 °C - 30 min |
| Recrystallization Annealing | n.d.            |
| Hardening                   | n.d.            |

TAB.4 - Investment casting parameters

|  |   |
|--|---|
| Premelting temperature                 | 1100 °C   |
| Casting Temperature                    | Min: 1050 °C<br>Max: 1150 °C                              |
| Water investment powder ratio          | 36 - 38 %   |
| Flask temperature                      | Min: 450 °C Max: 700 °C                                   |
| Quenching time without stones in place | Min: 5 min Max: 20 min                                    |
| Quenching time with stones in place    | 15 min in boiling water                                   |
| Pickling                               | H <sub>2</sub> SO <sub>4</sub> : 20 % Temp: 50 °C - 5 min |