

## TECHNICAL DATA SHEET

### PLAST312L - 417 ‰

Master alloy for the production of yellow 375 - 417 ‰ gold jewellery obtained by mechanical working. The elements contained in this product ensure a high surface quality and a high deformation capability thanks the small grain structure, making it suitable for the production of hand and machine made hollow and solid chains, deep drawn items and tube.

TAB.1 - Mechanical data

|                   |      |     |
|-------------------|------|-----|
| Hardness as cast  | 103  | HV  |
| Hardness hardened | n.d. |     |
| Tensile strength  | 508  | MPa |
| Yield strength    | 268  | MPa |
| Elongation        | 34   | %   |

TAB.2 - Physical data

|                    |             |                   |    |
|--------------------|-------------|-------------------|----|
| Color              | Deep yellow |                   |    |
| Colour Coordinates | L*:         | 91.10             |    |
|                    | a*:         | 3.75              |    |
|                    | b*:         | 19.6              |    |
| Density            | 11.36       | g/cm <sup>3</sup> |    |
| Melting Range      | Solidus:    | 894               | °C |
|                    | Liquidus:   | 918               | °C |

TAB.3 - Heat treatments

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

TAB.4 - Mechanical working parameters

|                                |             |      |     |
|--------------------------------|-------------|------|-----|
| Premelting temperature         |             | 1018 | °C  |
| Casting Temperature            | Min:        | 968  | °C  |
|                                | Max:        | 1068 | °C  |
| First thickness reduction      | Lamination: | 50   | %   |
|                                | Drawing:    | 25   | %   |
| Following thickness reductions | Lamination: | 75   | %   |
|                                | Drawing:    | 50   | %   |
| Pickling after annealing       | H2SO4:      | 20   | %   |
|                                | Temp:       | 50   | °C  |
|                                | Time:       | 5    | min |