

## TECHNICAL DATA SHEET

### PLAST679L + Ag5% - 417 ‰

Master alloy for the production of yellow 375 - 417 - 585 ‰ 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. The use is suggested with the addition of 0 - 10 % of pure silver to the master alloy.

TAB.1 - Mechanical data

|                   |      |    |
|-------------------|------|----|
| Hardness as cast  | 117  | 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*:         | 91.22             |    |
|                    | a*:         | 0.54              |    |
|                    | b*:         | 19.79             |    |
| Density            | 11.35       | g/cm <sup>3</sup> |    |
| Melting Range      | Solidus:    | 803               | °C |
|                    | Liquidus:   | 884               | °C |

TAB.3 - Heat treatments

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

TAB.4 - Mechanical working parameters

|                                |             |      |     |
|--------------------------------|-------------|------|-----|
| Premelting temperature         |             | 984  | °C  |
| Casting Temperature            | Min:        | 934  | °C  |
|                                | Max:        | 1034 | °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 |