

**MASTER
ALLOY**
A18VN 375‰

ALL-PURPOSE MASTER ALLOY FOR 750‰ (18 KT) YELLOW GOLD

GENERAL INFORMATION
General information

| | |
|--------------------|-----------------------|
| Color | Yellow |
| Typology | Master alloy for gold |
| Color shade | Green yellow |
| Production process | Casting |

Melting temperatures

| | |
|--------------------|-------|
| Liquidus [°C] | 820.0 |
| Solidus [°C] | 765.0 |
| Melting range [°C] | 55.0 |

Commercial composition

| | |
|------------|-------|
| Silver (%) | 69,00 |
| Copper (%) | 31,00 |



GOLD line

FULL CHARACTERIZATION DATA
Color coordinates

| | |
|----|------|
| L* | 92.9 |
| a* | 1.5 |
| b* | 12.0 |
| c* | 12.1 |

Mechanical characteristics

| | |
|---------------------------------------|-------|
| As cast hardness [HV 0.2] | 165.0 |
| Hardness after annealing [HV 0.2] | 150.0 |
| Hardness after 70% area red. [HV 0.2] | 260.0 |
| Tensile strength (Rm) [Mpa] | 535.0 |
| Yield strength (Rp0.2) [MPa] | 410.0 |
| Elongation at rupture (A) [%] | 15.0 |

MECHANICAL WORKING PARAMETERS

Pre-mixing temperature [°C] 940.0

Reductions

Sheet - area or thickness (%) 70.0

Wire - diameter (%) 45.0

POURING TEMPERATURES

Countinous from [°C]

Countinous to [°C]

Ingot from [°C]

Ingot to [°C]

Temperatures

940.0

1000.0

920.0

960.0

MECHANICAL WORKING ANNEALING

Temp. from [°C]

Temp. to [°C]

Time [min]

<1 mm

620.0

660.0

25.0

1 - 5 mm

620.0

660.0

30.0

>5 mm

620.0

660.0

35.0

Mechanical working quenching

Quench directly in water

PRODUCT TECHNICAL GUIDELINES**Processing temperatures**

While using in title 375, make quick quenching in water to minimize hardening on the alloy after mechanical deformation.