

GENERAL INFORMATION
General information

| | |
|--------------------|-----------------------|
| Color | Yellow |
| Color shade | Rich yellow |
| Production process | Mechanical working |
| Typology | Master alloy for gold |

Melting temperatures

| | |
|--------------------|-------|
| Liquidus [°C] | 895.0 |
| Solidus [°C] | 860.0 |
| Melting range [°C] | 35.0 |

Commercial composition

| | |
|------------|-------|
| Zinc (%) | 2,00 |
| Copper (%) | 51,00 |
| Silver (%) | 47,00 |



GOLD line

FULL CHARACTERIZATION DATA
Color coordinates

| | |
|----|------|
| L* | 86.9 |
| a* | 5.0 |
| b* | 22.6 |
| c* | 23.1 |

Mechanical characteristics

| | |
|---|-------|
| As cast hardness [HV 0.2] | 130.0 |
| Hardness after annealing [HV 0.2] | 150.0 |
| Hardness after 70% area red. [HV 0.2] | 255.0 |
| Single step age-hardening hardness [HV 0.2] | 250.0 |
| Tensile strength (Rm) [Mpa] | 424.0 |
| Yield strength (Rp0.2) [MPa] | 269.0 |
| Elongation at rupture (A) [%] | 38.0 |

Product applications

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|--|
| Sheet production |
| Wire production |
| Massive chain production |
| Ingot casting |
| Blanking production |
| Stamping production |
| Production of tube from continuous casting |
| Continuous casting |
| Hollow chain production |
| CNC and lathe production |
| Cladding production |
| TIG tube production |
| Age-hardening |

RELATED PRODUCTS LIST
Related Products

| | |
|---------|--|
| L1A | Powder for soldering of gold and silver chains |
| LSG406B | Master alloy for soldering of 750‰ (18 Kt) yellow gold |
| LSG409V | Master alloy for soldering of 750‰ (18 Kt) yellow gold |

Alternative Products

| | |
|-------|---|
| Y142W | Master alloy for mechanical working of 750‰ (18 Kt) yellow gold |
| C183N | Master alloy for casting of 750‰ (18 Kt) yellow gold |

CASTING PROCESSING PARAMETERS

Pre-mixing temperature [°C] 1015.0

| CASTING TEMPERATURES | Flask from [°C] | Flask to [°C] | Metal from [°C] | Metal to [°C] |
|----------------------|-----------------|---------------|-----------------|---------------|
| < 0.5 mm | 660.0 | 720.0 | 995.0 | 1025.0 |
| 0.5 - 1.2 mm | 580.0 | 650.0 | 975.0 | 995.0 |
| > 1.2 mm | 460.0 | 600.0 | 955.0 | 975.0 |

Trees without stones

Let the flask cool down for 5 minutes, then quench in water.

MECHANICAL WORKING PARAMETERS

Pre-mixing temperature [°C] 1015.0

Reductions

| | |
|-------------------------------|------|
| Sheet - area or thickness (%) | 75.0 |
| Wire - diameter (%) | 45.0 |

| POURING TEMPERATURES | Countinous from [°C] | Countinous to [°C] | Ingot from [°C] | Ingot to [°C] |
|----------------------|----------------------|--------------------|-----------------|---------------|
| Temperatures | 995.0 | 1075.0 | 975.0 | 1015.0 |

| 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

Let cool in air down to 550°C, then quench in a 50% water/50% alcohol solution or in water

AGE HARDENING PROCESSING PARAMETERS

| SINGLE STEP AGE-HARDENING TREATMENT | Temperature [°C] | Time [min] | Quenching |
|-------------------------------------|------------------|------------|-------------------|
| Age-hardening | 275.0 | 90.0 | Air or in furnace |