

GENERAL INFORMATION
General information

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

Melting temperatures

| | |
|--------------------|-------|
| Liquidus [°C] | 890.0 |
| Solidus [°C] | 870.0 |
| Melting range [°C] | 20.0 |

Commercial composition

| | |
|------------|-------|
| Copper (%) | 51,00 |
| Silver (%) | 49,00 |



GOLD line

FULL CHARACTERIZATION DATA
Color coordinates

| | |
|----|------|
| L* | 85.0 |
| a* | 5.4 |
| b* | 23.5 |

Physical characteristics

| | |
|------------------------------|------|
| Density [g/cm ³] | 15.2 |
|------------------------------|------|

General characteristics

| | |
|-------------------------|-------|
| As cast grain size [μm] | 150.0 |
|-------------------------|-------|

Product applications

| |
|---------------------------|
| Hand production |
| Continuous casting |
| Casting in closed systems |
| Casting without stones |
| Stamping production |
| Wire production |
| Ingot casting |
| Sheet production |
| Age-hardening |
| Massive chain production |

Mechanical characteristics

| | |
|---------------------------|-------|
| As cast hardness [HV 0.2] | 140.0 |
|---------------------------|-------|

RELATED PRODUCTS LIST
Related Products

| | |
|---------|--|
| LSG406B | Master alloy for soldering of 750‰ (18 Kt) yellow gold |
| LSG409V | Master alloy for soldering of 750‰ (18 Kt) yellow gold |

Alternative Products

| | |
|-------|---|
| B183N | 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] 1010.0

| CASTING TEMPERATURES | Flask from [°C] | Flask to [°C] | Metal from [°C] | Metal to [°C] |
|----------------------|-----------------|---------------|-----------------|---------------|
| < 0.5 mm | 660.0 | 720.0 | 1000.0 | 1030.0 |
| 0.5 - 1.2 mm | 580.0 | 650.0 | 980.0 | 1000.0 |
| > 1.2 mm | 460.0 | 600.0 | 960.0 | 980.0 |

Trees without stones

Let the flask cool down for 10-15 minutes, then quench in water.

Stone-in-place casting trees

Let the flask cool down for 30-45 minutes, then quench in water.

Pickling

Dip in RADIAL solution (50 g/l conc. at 60°C for 2 min.), or in sulphuric acid (10% conc. at 50°C for 5 min.)

MECHANICAL WORKING PARAMETERS

Pre-mixing temperature [°C] 1010.0

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 | 990.0 | 1070.0 | 970.0 | 1010.0 |

| 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

AGE HARDENING PROCESSING PARAMETERS

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