## GENERAL INFORMATION

<table>
<thead>
<tr>
<th>General information</th>
<th>Commercial composition</th>
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</thead>
<tbody>
<tr>
<td>Color</td>
<td>Silver (%)</td>
</tr>
<tr>
<td>Color shade</td>
<td>Copper (%)</td>
</tr>
<tr>
<td>Production process</td>
<td>Zinc (%)</td>
</tr>
<tr>
<td>Typology</td>
<td></td>
</tr>
<tr>
<td>Melting temperatures</td>
<td></td>
</tr>
<tr>
<td>Liquidus [°C]</td>
<td>910.0</td>
</tr>
<tr>
<td>Solidus [°C]</td>
<td>845.0</td>
</tr>
<tr>
<td>Melting range [°C]</td>
<td>65.0</td>
</tr>
</tbody>
</table>

## FULL CHARACTERIZATION DATA

### Color coordinates
- \( L^* \): 87.4
- \( a^* \): 3.0
- \( b^* \): 18.9
- \( c^* \): 19.1

### Physical characteristics
- Density [g/cm³]: 10.9

### General characteristics
- As cast grain size [µm]: 180.0

### Mechanical characteristics
- As cast hardness [HV 0.2]: 115.0
- Hardness after annealing [HV 0.2]: 125.0
- Hardness after 70% area red. [HV 0.2]: 260.0
- Single step age-hardening hardness [HV 0.2]: 150.0
- Tensile strength (Rm) [MPa]: 416.0
- Yield strength (Rp0.2) [MPa]: 217.0
- Elongation at rupture (A) [%]: 37.0

## RELATED PRODUCTS LIST

### Related Products
- CUT10X2 Copper tube, 10.0 mm diameter, 2.0 mm wall thickness, 2500 mm length, cold worked
- L1A Powder for soldering of gold and silver chains
- LSG409 Master alloy for soldering of 585‰ (14 Kt) yellow gold
- LSG409D Master alloy for soldering of 585‰ (14 Kt) yellow gold
- LSG417F Master alloy for soldering of 375-585‰ (9-14 Kt) yellow gold
- LSG419 Master alloy for soldering of 375‰ (9 Kt) yellow gold

### Alternative Products
- Y144W Master alloy for mechanical working of 375-585‰ (9-14 Kt) yellow gold
- C142GR Master alloy for casting of 375-585‰ (9-14 Kt) yellow gold

## Product applications
- Continuous casting
- CNC and lathe production
- Stamping production
- Massive chain production
- Production of tube from continuous casting
- TIG tube production
- Ingot casting
- Wire production
- Cladding production
- Sheet production
- Hollow chain production
- Blanking production
- Wire production

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LEGOR GROUP S.P.A. - Via del Lavoro, 1 - 36050 (VI) - Italy - Tel. +39 0444 467911 - Fax +39 0444 660677 - info@legor.com - www.legor.com

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**Y145T 375‰**  
MASTER ALLOY FOR MECHANICAL WORKING OF 375-585‰ (9-14 KT) YELLOW GOLD

## MECHANICAL WORKING PARAMETERS

<table>
<thead>
<tr>
<th>Pre-mixing temperature [°C]</th>
<th>1030.0</th>
</tr>
</thead>
</table>

### 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] |
| | 1010.0 | 1090.0 | 990.0 | 1030.0 |

## MECHANICAL WORKING ANNEALING

| | Temp. from [°C] | Temp. to [°C] | Time [min] |
| | 620.0 | 660.0 | 25.0 |
| <1 mm | |
| 1 - 5 mm | 620.0 | 660.0 | 30.0 |
| >5 mm | 620.0 | 660.0 | 35.0 |

### Mechanical working quenching

Quench directly in a 50% water/50% alcohol solution or in water

## AGE HARDENING PROCESSING PARAMETERS

### SINGLE STEP AGE-HARDENING TREATMENT

| | Temperature [°C] | Time [min] | Quenching |
| | 325.0 | 90.0 | Air or in furnace |