

TECHNICAL DATASHEET AND GUIDELINE

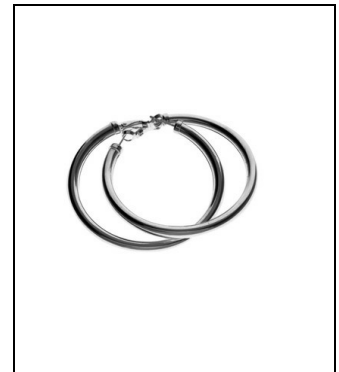
**WA1481T**  
Title 14 Kt

**Master alloy for mechanical working of 375-585-750‰ (9-14-18 Kt) white gold**

## GENERAL INFORMATION

Typology	<b>Master alloy for gold</b>
Production process	<b>Mechanical working</b>
Color	<b>White</b>
Color shade	<b>Off-white</b>
Density [g/cm <sup>3</sup> ]	<b>12.7</b>
<b>Melting temperatures</b>	
Solidus [°C]	<b>910</b>
Liquidus [°C]	<b>935</b>

Commercial composition	
Cu (%)	<b>70</b>
Ni (%)	<b>13</b>
Zn (%)	<b>17</b>



## FULL CHARACTERIZATION DATA

General characteristics	
As cast grain size [µm]	<b>350</b>
<b>Color coordinates</b>	
L*	<b>83</b>
a*	<b>1.6</b>
b*	<b>12.4</b>
c*	<b>12.5</b>
Yellow index	<b>26.2</b>

Mechanical characteristics	
Tensile strength (Rm) [MPa]	<b>514</b>
Yield strength (Rp0.2) [MPa]	<b>262</b>
Elongation at rupture (A) [%]	<b>37</b>
As cast hardness [HV 0.2]	<b>135</b>
Hardness after 70% area red. [HV 0.2]	<b>295</b>
Hardness after annealing [HV 0.2]	<b>160</b>
Single step age-hardening hardness [HV 0.2]	<b>150</b>

## PRODUCT APPLICATIONS

<b>Ingot casting</b>
<b>Continuous casting</b>
<b>Sheet production</b>
<b>Wire production</b>
<b>Production of tube from continuous casting</b>
<b>Hollow chain production</b>
<b>Cladding production</b>
<b>CNC and lathe production</b>

## RELATED PRODUCTS

NI1811-04	Low nickel release, mechanical working 750‰
NI1811-05	Low nickel release, mechanical working 585‰
FE5	Iron wire, core for hollow jewellery production
L1A	Soldering powder for chain
LSB442	Medium solder for 375‰ white gold
LSB475A	Medium/soft solder for 750‰ white gold
LSG409D	Medium solder for 585‰ yellow gold
LSG409V	Medium solder for 750‰ yellow gold

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**MECHANICAL WORKING PARAMETERS**

Casting temperature	Metal - from [°C]	Metal - to [°C]	Recommended reductions	
Ingot making	<b>1015</b>	<b>1055</b>	Sheet - area or thickness [%]	<b>70</b>
Continuous casting	<b>1035</b>	<b>1115</b>	Wire - diameter [%]	<b>45</b>

Mechanical working recommended annealing	Temperature - from [°C]	Temperature - to [°C]	Time [min]
> 5 mm	<b>660</b>	<b>700</b>	<b>40</b>
1 - 5 mm	<b>660</b>	<b>700</b>	<b>35</b>
< 1 mm	<b>660</b>	<b>700</b>	<b>30</b>