



# Aussiemet

# AussieMech

## YM521

## Technical Chart 14KT

YM521 is mechanical working master alloy for 9-14kt yellow gold. Most suitable applications as below:

- ◆ Can be used in continuous casting
- ◆ Can be used in Wire Production
- ◆ Can be used in Sheet Production
- ◆ Can be used in CNC and Lathe Production
- ◆ Suitable for mechanical working application like stamped items, solid and hollow chains, earrings, bracelets and tube rings

### Physical Characterization Data

COLOR	Rich Yellow
DENSITY [G/CM <sup>3</sup> ]	12.9
MELTING TEMPERATURE	895 °C
HARDNESS AS CAST	128 HV
HARDNESS (AFTER COLD WORK 70%)	278 HV
HARDNESS (AFTER ANNEALING)	127 HV
HARDNESS (AFTER AGE HARDNING)	169 HV

### Mechanical Working Parameters

PRE-MIXING TEMPERATURE [°C]	960-1000
PICKLING	Sulphuric Acid (%10)

Casting Temperature	Metal - from [°C]	Metal - to [°C]
INGOT MAKING	960	1000
CONTINUOUS CASTING	980	1060

### Recommended Reductions

SHEET - AREA OR THICKNESS [%]	70
WIRE - DIAMETER [%]	45

Mechanical working recommended annealing	Temperature [°C]	Time [min]
> 5 mm	630 - 670	40
1 - 5 mm	630 - 670	30
< 1 mm	630 - 670	20

### Reusing Scrap Instructions

Before reuse of scraps clean the scrap in best possible manner with the ultrasonic and magnetic polishing machine and remove all the dirt, oil, and greases from the metals. The scrap use percentage is not more than 50%.



### Hardening Treatment

275°C for 100 minutes cool very slowly possibly inside the furnace with a protection of hydrogen. To obtain further hardening increase the time in the furnace.

#### Notes:-

The above directions are only indicative. Strong variations to the above data are possible, depending on personal experience. Please, do not hesitate to contact us for further information.



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