



# Aussiemet

# AussieMech

## YM540

## Technical Chart 18KT

YM540 is mechanical working master alloy for 18-22kt 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> ]	15.12
MELTING TEMPERATURE	895 °C
HARDNESS AS CAST	183 HV
HARDNESS (AFTER COLD WORK 70%)	222 HV
HARDNESS (AFTER ANNEALING)	158 HV
HARDNESS (AFTER AGE HARDNING)	282 HV

### Mechanical Working Parameters

PRE-MIXING TEMPERATURE [°C]	950-990
PICKLING	Sulphuric Acid (%10)

Casting Temperature	Metal - from [°C]	Metal - to [°C]
INGOT MAKING	950	990
CONTINUOUS CASTING	960	1040

### 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.



## Aussiemet

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