



# Aussiemet

# AussieMech

## YM545

## Technical Chart 22KT

YM545 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> ]	17.3
MELTING TEMPERATURE	980 °C
HARDNESS AS CAST	86 HV
HARDNESS (AFTER COLD WORK 70%)	NA
HARDNESS (AFTER ANNEALING)	NA
HARDNESS (AFTER AGE HARDNING)	NA

### Mechanical Working Parameters

PRE-MIXING TEMPERATURE [°C]	1020-1080
PICKLING	Sulphuric Acid (%10)

Casting Temperature	Metal - from [°C]	Metal - to [°C]
INGOT MAKING	1020	1080
CONTINUOUS CASTING	1080	1120

### Recommended Reductions

SHEET - AREA OR THICKNESS [%]	65
WIRE - DIAMETER [%]	45

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

Website: [www.aussiemet.com.au](http://www.aussiemet.com.au),

Email: [info@aussiemet.com.au](mailto:info@aussiemet.com.au), [sales@aussiemet.com.au](mailto:sales@aussiemet.com.au),

89 SOMERSBY CIRCUIT, ACACIA GARDENS, NSW 2763, AUSTRALIA