



Aussiemet

AussieMech

YM545

Technical Chart 21KT

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	Yellow
DENSITY [G/CM ³]	17
MELTING TEMPERATURE	940 °C
HARDNESS AS CAST	90 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	1050	1090
CONTINUOUS CASTING	1070	1150

Recommended Reductions

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

Mechanical working recommended annealing	Temperature [°C]	Time [min]
> 5 mm	620 - 660	35
1 - 5 mm	620 - 660	30
< 1 mm	620 - 660	25

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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Website: www.aussiemet.com.au,

Email: info@aussiemet.com.au, sales@aussiemet.com.au,

89 SOMERSBY CIRCUIT, ACACIA GARDENS, NSW 2763, AUSTRALIA