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GM910M Technical Chart 21KT

GM910M is mechanical working master alloy for 14-22kt yellow gold. Most suitable applications as below:

- Addition of 0-40% of pure silver is recomended to the master alloy
- Can be used in continuous casting
- Can be used in Wire and 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	Natural Yellow
DENSITY [G/CM^3]	16.57
MELTING TEMPERATURE	910 °C
HARDNESS AS CAST	125 HV
HARDNESS (AFTER COLD WORK 70%)	228 HV
HARDNESS (AFTER ANNEALING)	122 HV
HARDNESS (AFTER AGE HARDNING)	125 HV

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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