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RM940 Technical Chart 9KT

RM940 is mechanical working master alloy for 9-18kt red 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	Deep Pink
DENSITY [G/CM^3]	11.12
MELTING TEMPERATURE	995 °C
HARDNESS AS CAST	104 HV
HARDNESS (AFTER COLD WORK 70%)	240 HV
HARDNESS (AFTER ANNEALING)	123 HV
HARDNESS (AFTER AGE HARDNING)	111 HV

Mechanical Working Parameters

PRE-MIXING TEMPERATURE [°C]	1070-1100
PICKLING	Sulphuric Acid (%10)

Casting Temperature	Metal - from [°C]	Metal - to [°C]
INGOT MAKING	1070	1100
CONTINUOUS CASTING	1090	1170

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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