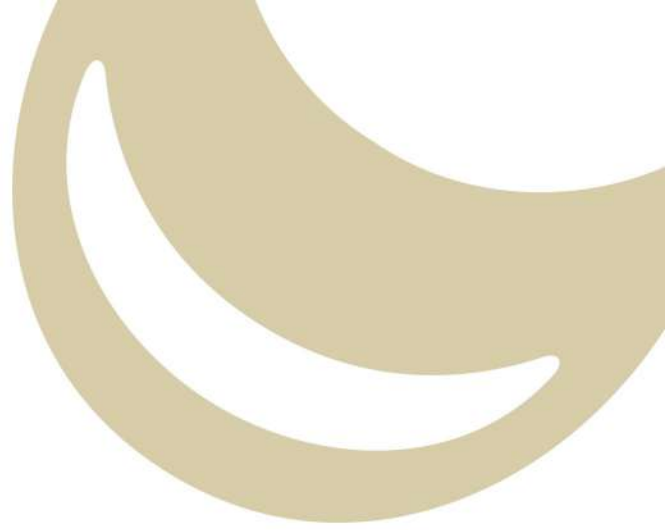




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YM521

Technical Chart 9KT

YM521 is mechanical working master alloy for 9-14kt 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 ³] | 11.25 |
| MELTING TEMPERATURE | 915 °C |
| HARDNESS AS CAST | 113 HV |
| HARDNESS (AFTER COLD WORK 70%) | 223 HV |
| HARDNESS (AFTER ANNEALING) | 111 HV |
| HARDNESS (AFTER AGE HARDNING) | 187 HV |

Mechanical Working Parameters

| | |
|-----------------------------|----------------------|
| PRE-MIXING TEMPERATURE [°C] | 980-1030 |
| PICKLING | Sulphuric Acid (%10) |

| Casting Temperature | Metal - from [°C] | Metal - to [°C] |
|---------------------|-------------------|-----------------|
| INGOT MAKING | 980 | 1030 |
| CONTINUOUS CASTING | 1000 | 1080 |

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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