



# Master Alloys Technical Specifications

Doc No  
MA/YG/02

**PY801SP**

**General Purpose Alloy for 22Kt and 18Kt Yellow Gold**

## General Information

1	Suitable Karatage	<b>22KT</b>	4	Application	<b>General Purpose</b>
2	Color	<b>Yellow</b>	5	Solid State Hardness After Melting	<b>22 KT : 77.75HRB</b>
3	Color Shade	<b>Pinkish Yellow</b>			<b>18KT : 89.75HRB</b>

## Melting Parameters

	Karatage	Temperature *C	Time min.sec
1	22KT	900	3.1

## Casting Parameters

	Karatage	Melting Casting Temperature		Investment Flask Temperature	
		Temp	Quenching Time	Temp	Type of Casting
1	22KT	960	15 minutes	600	Vacuum Casting

## Mechanical Working Parameters

	Thickness	Temperature *C	Time
<b>Annealing</b>	>5	550	30
	1-5mm	550	25
	<1mm	550	20

## Color Coordinates

22KT		
L	a	b
87.1	12.3	30.3

## Technical Guidelines

1	For mixing, place master alloy grains under the gold in the crucible.
2	Ensure an inert atmosphere of N2 Gas over the metal during melting.
3	On reaching the melting temperature, hold metal for few minutes and stir with graphite stirrer before pouring into mould.
4	Induction melting is strongly recommended.
5	After casting, leave flask for atleast 15 minutes and then quench in normal water.
6	Pickle in sulfuric acid (10% conc. At 60°C for 5 min.)
7	<b>Ideal alloy for 22KT handmade jewellery. Also recommended for 22KT chains.</b>

**Remarks: The information is for reference only. The parameters should be adjusted according to the particular casting conditions.**

**Bangalore Refinery Private Ltd.**

**No.6/1, Plot No.20-A, KIADB Main Road,  
1st Cross, 1st Phase, Peenya Industrial Area,  
Bangalore -560058**

**Ph : +91-80-41141999/41142999**

**E-mail : [enquiry@bangalorerefinery.com](mailto:enquiry@bangalorerefinery.com)  
[www.bangalorerefinery.com](http://www.bangalorerefinery.com)**