

Material Data Sheet

(1104) - 750 red+

1. Composition

Au (ISO 9202:1991) >75.00%

2. Physical Properties

Melting range	915-915°C	
Density	15.0 g/cm ³	
Colour	dark red	6 N
Young's Modulus	110 GPa	

3. Mechanical Properties

Condition	cold worked	soft	hardened
Parameters	75%KV	600°C/1h/H2O	600°C/1h/H2O&250°C/30'/air
Hardness HV5	280	190	305
Tensile strength (Rm)	960 MPa	570 MPa	955 MPa
0.2% Proof stress (Rp 0.2%)	930 MPa	470 MPa	625 MPa
Elongation	1 %	34 %	8 %

4. Handling

Brazing With a torch or in a furnace. Recommended brazing filler metals for joining yellow parts: S.G 700 soft (alloy No. 718, TI 700°C), S.G 750 medium (alloy No. 755, TI 750°C) und S.G 810 hard (alloy No. 781, TI 810°C). For joining red parts corresponding red solders muss be used.

Pickling With diluted hot sulphuric acid (H2SO4, 10%). Discoloration due to pickling can be removed by polishing.

Remarks Annealing (for single parts):
30 minutes at 600°C followed by quenching in water. To prevent oxidation annealing should be done in a reducing atmosphere.

Hardening:
The alloy can be thermally hardened after annealing at 250°C for 30 minutes.
Hardness can be increased by up to 60%.

Very well suited for all cold work processes (rolling, drawing, stamping, punching, bending, chasing).

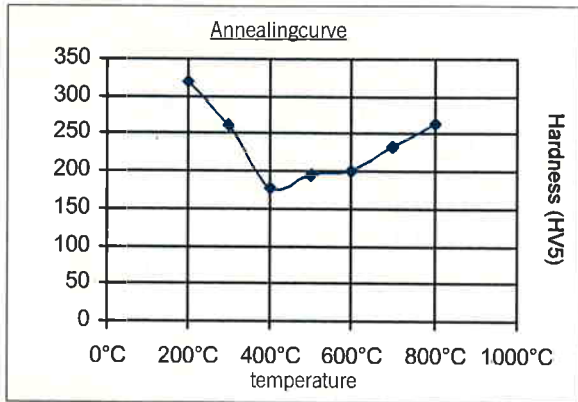
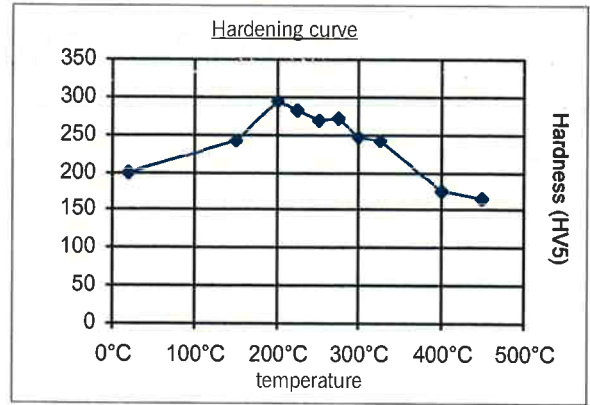
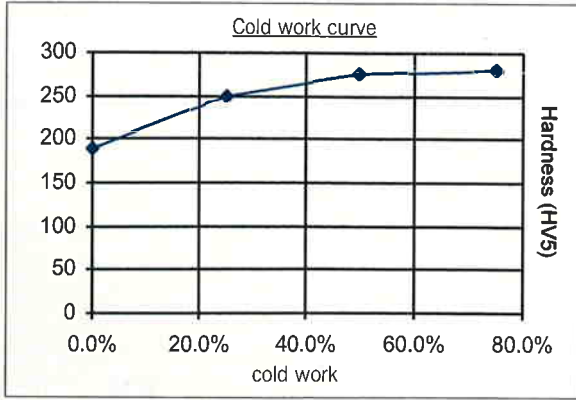
Machining such as turning, milling, drilling etc. is preferably done on cold worked or hardened material.

For precision casting (lost wax process) melting and casting in vacuum or under protective atmosphere is recommended.

5. Certification

Manufacture and delivery are constantly monitored according to the quality management system standard according to ISO 9001.

6. Graphs



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