9ct MR Red Alloy Properties and Process Data

• A medium red general purpose alloy - 5N colour.
• A versatile alloy - widely used in many forms of jewellery manufacture.
• Alloy is age hardenable.

Technical Information

Alloy Composition:
• 37.6% Gold,
• 2.65% Silver, + Zinc & Copper.

Properties
• Density 11.1 g/cm³
• Melting Range 900 - 960°C
• Annealed Hardness 110 +/- 15 HV
• 10% reduction of area 145 +/- 15 HV
• 20% reduction of area 175 +/- 10 HV
• 40% reduction of area 200 +/- 10 HV

Property Annealed	
UTS	433 N/mm²
Elongation	33%
Proof Stress	190 N/mm²

Process Data
Rolling/Drawing/Spinning/Stamping:
May be worked up to 70% reductions between anneals.

Annealing:
This alloy may be annealed at 650°C in a furnace, the time depending upon the size of the workpiece. Alternatively it may be heated to cherry red and allowed to cool. For maximum ductility, this alloy may be quenched from black heat (500°C)

Machining:
For best results, machine this alloy in the cold worked state.

Chain:
May be used to manufacture all chain types.

Solders:
Any of the hallmarking quality 9ct gold solders supplied by Cookson may be used with this alloy.

Enamelling information:
Due to the presence of Zinc this alloy may not perform satisfactorily when annealed.

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