

9ct WM White Alloy Properties and Process Data

- A general purpose 9ct white alloy, used extensively for all forms of jewellery fabrication.
- Alloy has a improved white colour - *A 9ct white which is really whit !*
- Can be used for the manufacture of all forms of jewellery.

Technical Information

Alloy Composition:

- 37.6% gold,
- 55.47% silver + Copper & Zinc

Properties

- Colour White
- Density 11.9 g/cm³
- Melting Range 910 - 940°C
- Annealed Hardness 95 +/- 10 HV
- 10% reduction of area 115 +/- 10 HV
- 20% reduction of area 140 +/- 10 HV
- 40% reduction of area 165 +/- 10 HV

Property Annealed

UTS 400 N/mm²

Elongation 35%

Proof Stress 180 N/mm²

Process Data

Rolling/Drawing/Stamping/Spinning:

May be cold worked up to 70% reduction of thickness between anneals.

Annealing:

The alloy may be annealed at 650°C in a furnace, the time depending on size of workpiece. Alternatively it may be heated to cherry red and allowed to cool. The alloy may be quenched if necessary.

Casting:

The alloy has excellent form-filling capabilities however it may leave a slight dross in the crucible after casting. Casting temperatures range from 980-1090°C.

Machining:

For best results the alloy must be machined in the cold worked condition.

Chain:

May be manufactured into all chain styles.

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 enamelled.