

18ct RP Red Alloy Properties and Process Data

- General purpose alloy
- Rose pink colour (4N)
- Age hardenable alloy

Technical Information

Alloy Composition:

- 75.1% Gold,
- 8.5% Silver + Copper

Properties

- Colour Rose Pink (4N)
- Density 15.3g cm³
- Melting Range 885-915°C
- Annealed Hardness 160 +/-5 HV
- 10% reduction of area 170 +/- 5 HV
- 20% reduction of area 190 +/- 5 HV
- 40% reduction of area 215 +/- 5 HV

Property Annealed

UTS	650 N/mm ²
Elongation	40%
Proof Stress	395 N/mm ²

Process Data

Rolling / Drawing / Stamping / Spinning:

Can be cold worked up to 70% reductions between anneals.

Annealing:

May be annealed in a furnace at 650°C. To achieve maximum ductility this alloy should be quenched immediately, from a cherry red colour.

Casting:

The casting temperature range for this alloy is 985 – 1065°C, with smaller, finer castings requiring temperatures at the higher end of this range. As this alloy is age hardenable, for maximum ductility, the castings should be quenched from a cherry red colour (Black heat quenching is also possible)

Machining:

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

Chain:

May be manufactured in all chain types.

Solders:

Any of the hallmarking quality 18ct gold solders supplied by Cookson may be used with this alloy.

Enamelling information:

This material can be enamelled successfully. Any oxide or surface imperfections must be removed prior to application.



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