

9ct SPW White Gold Alloy Datasheet

- A general purpose white alloy, often used for casting.
- Used in all forms of jewellery fabrication.
- The alloy does not contain Zinc, Nickel or Palladium.

Technical Information

Alloy Composition:

- 37.6% Gold,
- 54.6% Silver + Copper.

Properties

- Colour Straw White
- Density 12.4g/cm³
- Melting Range 915-950°C
- Annealed Hardness 110+/- 15 HV

Property Annealed

UTS	433 N/mm ²
Elongation	33%
Proof Stress	190 N/mm ²

Process Data

Rolling / Drawing / Stamping / Spinning:

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

Casting:

The alloy has good fluidity and is ideal for small / fine detailed settings. The alloy has a strong tendency to absorb oxygen during the melting and casting process but because the alloy has no Zinc content, it is ideally suited to vacuum casting. A reducing gas cover would minimise any oxygen absorption. Casting temperatures should range from 1020 - 1140°C, with fine, detailed work using the higher end of this temperature range.

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.

Machining:

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

Solders:

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

Enamelling Information:

This alloy may be enamelled successfully.