14ct AW White Alloy Properties and Process Data

• A versatile casting alloy
• Can be used in all investment casting applications
• This alloy has excellent form filling capabilities and may be cast into sulphate bonded investments.
• Alloy Contains Nickel
• Alloy has been tested to BSEN1811 and confirms to part II of the Nickel Directive 76/769/EEC. But does not conform to part 1 which *"prohibits the supply of post assemblies intended to be inserted into a pierced part of the body during epithalisation of the wound caused by such piercing".*

Technical Information

Alloy Composition:
• 60.1% Gold,
• + Copper + Zinc + Nickel

Properties
• Colour White
• Density 12.9g/cm³
• Melting Range 980-1030°C
• Annealed Hardness 160 +/- 10 HV
• 10% reduction of area 185+/- 15 HV
• 20% reduction of area 220+/- 15 HV
• 40% reduction of area 260+/- 15 HV

Property Annealed	
UTS	500 N/mm²
Elongation	30%
Proof Stress	280 N/mm²

Process Data
Casting:
Casting temperature ranges from 1080-1180°C, with fine detailed work using the higher end of this temperature range.
Flask temperature ranges from 500-650°C. Do not quench this alloy above 400°C.

Annealing:
This 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 from below 500°C (black heat) if necessary.

Solders:
Any of the hallmarking quality 14ct gold solders supplied by Cookson may be used with this alloy.

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