

## 18ct AA225 White Alloy Properties and Process Data

- Can be hardened to give enhanced wear properties
- Costs less than other Palladium White alloys
- Alloy requires Rhodium Plating

### Technical Information

#### Alloy Composition:

- 75.1% Gold,
- 10% Silver + 0.5% Platinum + 7.4% Palladium + Copper & Zinc

#### Properties

- Colour Straw White
- Density 15.8 g/cm<sup>3</sup>
- Melting Range 980-1025°C
- Annealed Hardness 120 +/-10 HV
- 10% reduction of area 150 +/-10 HV
- 20% reduction of area 180 +/-10 HV
- 40% reduction of area 210 +/-10 HV
- Aged Hardness Higher values may be achieved if aged from a worked condition.

#### Property Annealed

Vickers Hardness	120 +/- 10HV
UTS	500 N/mm <sup>2</sup>
Elongation	35%
Proof Stress	320 N/mm <sup>2</sup>

#### Process Data

Process Data:

Cold work to 70% reductions between anneals for rolling and drawing.

Annealing:

Optimum ductility is obtained by annealing at 750°C and quenching.

Ageing:

The alloy may be aged by heat treating at 325°C for approximately 30 minutes.

Investment casting:

The alloy may be cast into conventional sulphate investments. Casting temperatures vary from 1030°C to 1130°C.