

AZTEC

HIGH NOBLE

Au & Pt Group: 99.9%

Aztec is essentially pure gold (99.9%) that contains just enough oxide former to allow for porcelain bonding. The use of Aztec is limited to single unit restorations with full porcelain coverage in the anterior region.

| PROPERTIES* | |
|----------------------------------|------------------------|
| Melting point | 1945°F / 1063°C |
| Coefficient of Thermal Expansion | |
| from 25-500°C | 15.3 |
| from 25-600°C | 15.5 |
| Density | 19.3 g/cm ³ |

| CHEMISTRY | |
|-----------|-------|
| Gold | 99.9% |
| Indium | <1% |

| AFTER PORCELAIN FIRING | |
|------------------------|-------|
| Hardness | 22 HV |

PROCESSING TECHNIQUE

- WAXING** Wax to a minimum of 0.2mm. Provide an ample reservoir, either with the use of a reservoir sprue or a runner bar (indirect method).
- INVESTMENT** Use either a gypsum bonded investment or a phosphate bonded high heat investment. Gypsum investments allow for easier removal of the delicate castings.
- BURNOUT** Follow manufacturer's instructions for appropriate rate of climb. With gypsum investment, burnout temperature can not exceed 1200°F (650°C).
With phosphate bound investments, use a maximum temperature of 1400°F (760°C)
- DIVESTING** Aztec castings are extremely fragile and are easily distorted. Divest with the utmost care.
- MELTING AND CASTING** No extra turns of the casting arm are required (2-3 turns).
Multi-orifice torch: 5-7 psi fuel and 10-15 psi oxygen.
DO NOT USE CASTING FLUX.
Casting temperature ~2125°F (1160°C).
Always use a minimum of 50% new metal when remelting buttons

- FINISHING** **Aztec castings are very soft, and care must be taken with surface finishing.**
You may use the abrasive of your choice provided adequate care is taken.

We have obtained outstanding and consistent results by first removing excess metal with a sharp carbide, then gently smoothing the surface with a fine aluminum oxide stone. A coarse rubber wheel for final finishing has also provided satisfactory results.

Provided care is taken, the surface may then be gently sandblasted. Sandblasting is not essential, but may provide users with a more uniform appearing oxide.

- CONDITIONING (Degassing, Oxidation)**
Oxidize at 1740F (950°C) in air. Bench cool.
Proceed with normal opaque technique.

- SOLDERING** In that Aztec is not recommended for multi-unit cases, it is unlikely that soldering will be necessary. If soldering is required, the following materials are recommended:

Pre-solder CPS
Post-solder 650
Flux Brown Fluoride Flux

