

AZTEC

HIGH NOBLE YELLOW PORCELAIN ALLOY

AZTEC, a high gold, high noble 99.9% Au porcelain dental alloy, is the unparalleled aesthetic option for only single unit anterior PFM restorations. With a very light oxide, technicians can accurately match shades to the surrounding dentition and the natural characteristics of gold provide AZTEC with a very high level of bio-compatibility.

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%
Contains less than 1% Indium	
Classification - High Noble	

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)
- DEVESTING** 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.
- OXIDATION** Oxidize from 1200°F (650°C) to 1740°F (950°C) at 145°F/min (80°C/min) in air with no hold time. 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

5237Y r3

