

SENTRY
HIGH NOBLE WHITE CERAMIC ALLOY
Au & Pt Group: 81.3%

PROPERTIES*	
Melting Range	2175-2335°F 1190-1280°C
Coefficient of Thermal Expansion from 25-500°C	14.4
from 25-600°C	14.7
Density	14.4 g/cm ³

CHEMISTRY	
Gold	55.1%
Palladium	26.2%
Silver	12.2%
Indium	6.5%
Rhenium	<1%

AFTER PORCELAIN FIRING*	
Hardness	245 HV
Tensile Elongation	10%
Tensile Yield Strength/Proof Stress	76,400 psi / 525 MPa
Ultimate Tensile Strength	104,000 psi / 715 MPa
Modulus of Elasticity	17.5 x 10 ⁶ psi / 121,000 MPa

* Test methods conform to ISO Standard 9693 and ANSI/ADA 38

PROCESSING TECHNIQUE

WAXING	0.3mm for single units and 0.5mm for bridgework
INVESTMENT	Phosphate-bonded high heat investment with or without carbon
BURNOUT	1450°F (790°C)
MELTING AND CASTING	Wind the casting arm one more time than normal (3-4 winds). Multi-orifice torch: 10 psi fuel and 20 psi oxygen (0.7 bars fuel and 1.4 bars oxygen). Heat until cloudy surface clears before releasing the casting arm. DO NOT OVERHEAT. DO NOT USE CASTING FLUX. Casting temperature ~2435°F (1335°C).
FINISHING	Finish with aluminum oxide stones. Blast porcelain receiving surfaces with non-recycled aluminum oxide. Clean in ultrasonic for 10 minutes.
CONDITIONING	(Degassing, Oxidation) Oxidize at 1850°F (1010°C) in air. Hold for 5 minutes. Bench cool. Proceed with normal opaque technique.
SOLDERING	Pre-solder PWS Post-solder 615 Solder Flux Brown Fluoride Flux (for both pre & post soldering)

Jensen Technical Service is available 8:00 AM - 8:00 PM EST by calling 1-800-243-2000

5233Y Rev 0

