

**PULSE N3**  
**NOBLE WHITE CERAMIC ALLOY**  
**Au & Pt Group: 83%**

<b>PROPERTIES*</b>	
Melting Range	2075-2390°F 1135-1310°C
Coefficient of Thermal Expansion from 25-500°C	13.8
from 25-600°C	14
Density	11.5 g/cm <sup>3</sup>

<b>CHEMISTRY</b>	
Gold	3%
Palladium	79.7%
Silver	4%
Indium	6.5%
Gallium	6.3%
Zinc	<1%
Ruthenium	<1%
Rhenium	<1%

<b>AFTER PORCELAIN FIRING*</b>	
Hardness	250 HV
Tensile Elongation	32%
Tensile Yield Strength/Proof Stress	79,325 psi / 545 MPa
Ultimate Tensile Strength	122,065 psi / 840 MPa
Modulus of Elasticity	17.3 x 10 <sup>6</sup> psi / 119,000 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** 1550°F (845°C). For Press-to-Metal<sup>(R)</sup>, use a rapid burnout technique.
- 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 ~2490°F (1365°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.  
 Do not remove oxide. For Pulse Press-to-Metal, use 950°C Paste Opaque
- SOLDERING** Pre-solder P-80 or LX Solder  
 Post-solder 615 or 1400 Solder  
 Flux Brown Fluoride Flux (for both pre & post soldering) QA

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

