

Galileo PF

Au & Pt Group: 85.5%

PHYSICAL PROPERTIES:	
Melting Range	1830 - 1960°F 1000 - 1070°C
Coefficient of Thermal Expansion	
from 25-500°C	15.8 x 10-6
from 25-600°C	15.9 x 10-6
Density	16.9 g/cm ³

CHEMISTRY:	
Gold	75.0%
Silver	11.9%
Platinum	10.0%
Zinc	2.5%
Rhodium	<1%
Iridium	<1%

MECHANICAL PROPERTIES:	As Cast &	
	Porcelain Fired	Hardened
Hardness	170 HV	200 HV
Tensile Elongation	13%	10%
Tensile Yield Strength/Proof Stress	50,760 psi / 350 MPa	62,360 psi / 430 MPa
Ultimate Tensile Strength	74,690 psi / 515 MPa	84,120 psi / 580 MPa
Modulus of Elasticity	100 GPa	100GPa

PROCESSING TECHNIQUE

- WAXING** 0.3mm for single units and 0.5mm for bridgework
- INVESTMENT** Phosphate-bonded high heat investment with or without carbon
- BURNOUT** 1250°F / 675°C
- MELTING AND CASTING** No extra turns of the casting arm are required (2-3 turns).
Multi-orifice torch: 7 psi fuel and 15 psi oxygen (0.5 bars fuel and 1.0 bars oxygen).
The alloy will fully puddle and form a ball before it is ready to cast . **DO NOT OVERHEAT.**
DO NOT USE CASTING FLUX. Add 50% new metal to buttons.
Casting temperature is 2060°F / 1130°C
- FINISHING** Finish with aluminum oxide stones. Blast porcelain receiving surfaces with non-recycled aluminum oxide
- CONDITIONING (Degassing, Oxidation)**
Oxidize at 1580°F / 860°C in air. Hold for 3 minutes. Bench cool.
Proceed with normal opaque technique.
- HARDENING** *Mechanical properties of Galileo PF can vary with cooling rate after porcelain firing. For maximum strength, heat treat at 932°F (500°C) for 15 minutes (after glazing).*
- SOLDERING**
- | | |
|-------------|---|
| Pre-solder | Satellite |
| Post-solder | 1400 |
| 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

