PG-200+

COMPOSITION					
Au	**Pt**	**Pd**	**Ag**	**Cu**	**Other**
1	**1**	**77**	**0**	**10**	**In Ga Sn Ru Ir**

White Porcelain Alloy

APPLICATION

Single Units, Short & Long Span Bridges, Implants

SOLDER

Pre: Porc Silver Free Post: 650, 615, 585, 450

TECHNICAL DATA

	HARDENED
Vickers Hardness:	285
Proof Stress:	91,000 psi
Tensil Strength:	132,500 psi
Elongation:	26%
Melting Range:	2165-2335°F / 1185-1280°C
Casting Temperature:	2500°F / 1370°C
Density g/cm^3:	10.6
Thermal Expansion:	14.1 @ 500°C / 14.3 @ 600°C

TECHNICAL INSTRUCTIONS

WAXING: Maintain optimal pattern thickness of 0.3 – 0.5 mm. Build out deficient areas to insure uniform porcelain thickness. Avoid sharp corners and angles. Provide adequate bulk in connection areas.

SPRUING: *Direct*: Attach 8-10 gauge wax sprue with reservoirs to the heaviest portion of the pattern. Keep pattern(s) 1/4" from top of ring.

Indirect: Attach 10 gauge wax sprue to the heaviest portion of the pattern(s). Trim to 1/8" and attach a 6 gauge runner bar. Build up crucible former with soft wax and attach runner bar to crucible former with 2 or 3, 8 gauge gate sprues.

INVESTING: Use a high heat phosphate bonded **carbon-free** investment as per manufacturer's instructions.

BURNOUT: *Single Stage*: Room temperature to 1450-1550°F (788-843°C) at medium rate.

Two Stages: 1. Room temperature to 800°F (427°C) at 20°F/min.
2. 800°F (427°C) to 1450-1550°F (788-843°C) at 30°F/min.

Heat soak at 1450-1550°F (788-843°C) for at least 1 hour. Add 10 minutes soak time for each additional ring.

MELTING: Multi-orifice gas/oxygen torch or induction. Do not use flux. Do not use carbon crucible. Add 50% of new alloy to the cleaned button(s).

CASTING: Allow metal to pool to a shiny mirror surface and cast immediately. Bench cool to room temperature.

FINISHING: Use high quality aluminum oxide barrel stones, carbides or sintered diamond points to achieve a smooth scratch-free surface. Blast with 50 micron aluminum oxide. Clean in distilled water using ultrasonic cleaner for 10 minutes.

OXIDATION: Air fire at 1850°F (1010°C) and hold for 5 minutes. A light gray oxide will appear. Blast off this oxide and clean in distilled water using ultrasonic cleaner for 10 minutes.

OPAQUING: Fire one thin slurry. Use regular opaque coat(s) to mask remaining oxide show through.