

# UNITED

PRECIOUS METAL REFINING, INC.

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## PALLADIUM 950 GRAIN # PD950-GR7

*Composition : 95.2 % Palladium, 3.0% Ruthenium , 1.8 % Silver Alloy*  
*Density: 6.36 Troy Oz /cubic inch – 12.10 grams per cc*  
*Hardness: Cast – 130 Hv; Annealed – 120 Hv*  
*Melting range: 1570 - 1590 °C (2582 -2894 °F)*

Thank you for using UNITED'S alloys.

UNITED'S # **PD950GR7 White Casting grain** is a high Pd content grain used to manufacture Palladium jewelry. **PD-950GR7 is to be used for casting or fabrication** directly without the addition of any gold or other metals. This alloy has a **Bright White appearance**. Jewelry made with this alloy may also be Rhodium plated for optimum color. **PD-950GR7 grain should be cast in ( Platinum Investment) Phosphate bonded investment and preferably in a Platinum Casting machine under an Argon gas cover** . Finishing of the cast jewelry pieces is similar to the finishing procedures followed for Platinum jewelry.

<b>CASTING</b> <b>(Under Argon Gas Cover)</b>	<b>1550 °C – 1600 °C</b> <b>2820 °F – 2910 °F</b>
<b>FLASK TEMPERATURE</b>	<b>676 °C to 760 °C</b> <b>1300 °F to 1450 °F</b>
<b>QUENCH TIME</b>	<b>20 to 25 minutes</b> – (Immerse button in water for 1 min prior to complete quenching of the flask).  <b>NOTES: Melt temperature may vary with type of unit.</b>
<b>INVESTMENT REMOVAL</b>	Most standard investment removers will successfully remove the investment powder. Fluoric-based investment removers are the best for removing the silicon oxide invisible coating. Use of aggressive acids causes stress corrosion and surface damage and is therefore not recommended.
<b>ANNEALING</b>	Inert Atmosphere Annealing between <b>1650°F to 1835 °F / 898 °C to 1000 °C</b> for <b>20 to 30 minutes and quench in water</b> . Temperature and time depends on material amount and size.
<b>REMELTING</b>	We recommend 50% rejuvenation for re-melting. Tumble clean the scrap metal before using for re-melting.
<b>TECHNICAL ASSISTANCE</b>	Always available... Call 1-800-999-3463 / 1-800-999-FINE E-mail: <a href="mailto:techteam@unitedpmr.com">techteam@unitedpmr.com</a> / Web-Site / <a href="http://www.unitedpmr.com">www.unitedpmr.com</a>

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