



# INVESTMENT CASTING WITH 10K Ni WHITE GOLD GR10W601000



Developed for use as casting grain, Imperial's 10K Nickel White grain is formulated to provide a whiter colour while offering superior casting characteristics, ductility for settings and a surface hardness that promotes easier finishing. Imperial's family of 10K Ni-White casting alloys already are classed in the Grade 1 (whitest) class, in accordance to the new standard for whiteness established by the World gold Council and MJSA (\*).



(\* Please refer to [www.imperialproducts.com/quality](http://www.imperialproducts.com/quality) for more information regarding white gold classification



## CASTING INFORMATION

1. **Melting range:** \*1030 – 1073°C / \*1886 – 1963°F (\*solidus temperatures are estimates)
2. **Density:** 11.23 grams/cm<sup>3</sup> , 118.5 dwt/in<sup>3</sup>
3. **Recommended Casting and Flask Temperatures:** These vary with the design and mass of the item(s) being cast, so you may need to run some test casts to work out the combination of temperatures best suited to your specific design. As a starting point, we recommend the following conditions:

	<u>Casting Temperature</u>	<u>Flask Temperature</u>
Large Items	1100°C / 2010°F	480°C / 900°F
Medium sized items	1120°C / 2050°F	540°C / 1000°F
Small, intricate items	1170°C / 2140°F	590°C / 1100°F

4. **Cooling:** After casting, let the flask cool at room temperature until it is no longer red (approximately 10 minutes), then quench in water.
5. **Recycling:** This product can be recycled 50% reused / 50% new grain, under strictly clean casting procedures to avoid carryover of contaminants (investment material, etc.).
6. **Physical Properties:**

**Ultimate Tensile Strength (UTS):** 83,000 psi  
**As-Cast Hardness (Vickers):** 140 Hv

***We are always interested in hearing your opinion of how our products have performed for your application. Also, contact us should you have any questions, comments or require information regarding Imperial's wide range of gold, silver and platinum products.***

**Imperial's Precious Metals  
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