
Natural Vanilla White Alloy F1

US Patent # 6951588 B1 Dated: October 4th 2005

Natural Vanilla White alloy **F1** is a nickel free & palladium free white alloy for investment casting & wrought fabrication. **F1**'s metallurgy is based on silver as the main alloying element with additional bleaching & flow elements. **F1** should be used in a manner similar to the use of yellow gold alloys. Working characteristics are also similar to yellow gold.

10K or 14K Alloying Temp: **1065° C / 1950° F**

Add ¼ teaspoon of Boric acid after the metal has melted. Stir aggressively using a quartz rod to remove all the dross and flux. Metal should have the appearance of a shiny convex mirror prior to graining.

Investment Casting Temp: **990°-1010° C / 1815°-1850° F**

Fluxing with boric acid, cleaning and stirring will provide better results.

Note: Melting & Solidification characteristics are similar to green gold & sterling silver due to the high silver content. Techniques used in melting & casting these will work for the F1. Thicker sprue on wax patterns recommended for defect free castings.

Recommended Flask Temp: **620°-675° C / 1150°-1250° F**

Use higher temperature range for thin-filigree type castings and for larger flasks.

Flask Quench Time **20-30 Minutes**

Reuse should be 50% fresh. Tumble clean the scrap metal at least for 4 hours in a barrel tumbler, rinse clean and dry prior to re-using.

Density (gm/cc) Alloy F1: **9.78**, 10K F1: **12.74**, 14K F1: **14.14**

Density Notes:
F1 is 15% heavier than common nickel white in 10K
F1 is 12% heavier than common nickel white in 14K
F1 is 8% heavier than common nickel white in 18K
F1 is the same density as common palladium white in all karats.

Wrought Product Alloying & Fabrication can be used with all methods currently employed.

Vickers Hardness (Hv): 60 % Cold Rolled 14K sheet: **160 Hv.**

**TECHNICAL
ASSISTANCE**

Always available... Call 1-800-999-3463 / 1-800-999-FINE
E-mail / doc@unitedpmr.com Web-Site / www.unitedpmr.com

2781 Townline Road, Alden, NY 14004, USA.

Phone : (800) 999-3463; International Phone : +1-(716)-683-8334

Fax : (800) 533-6657; International Fax : +1-(716)-683-5433

E mail: sales@unitedpmr.com; Website: www.unitedpmr.com