

UNITED “RUSSIAN RED” ALLOY # 520-S

Thank you for using UNITED’S alloys.

UNITED’S # **520-S** ALLOY is a “**Spring Hard**” version of our regular # **520** pink alloy & may be used for **9 K – 18 K casting**. Castings will produce a **Russian Red finished color**.

You should obtain excellent results by following a few simple instructions.

MELTING

We do recommend pre-alloying all alloy and fine gold with aggressive stirring & fluxing to assure a uniform mixture.

Step : 1	Pre- Alloying (Fine gold + alloy) Temperature	1040° - 1050° C 1904° - 1922° F
Step : 2	Casting Temperature for 9 K – 14 K Alloyed Grain	970° - 980° C 1778° - 1796° F
	Casting Temperature for 18 K Alloyed Grain	1000° - 1010° C 1832° - 1850° F

NOTE: Melt temperature may vary with type of unit. This alloy is designed for casting only.

FLASK TEMPERATURE

Normal recommended temperature in the range of **580° C to 700° C / 1076° F – 1292° F** depending on size of flask, karat & type of jewelry.

FLUXING

Boric Acid is the recommended flux. Use as little flux as possible. Do not use carbon fluxes or any fluxes designed for refining; i.e., soda ash, saltpeter, etc. Avoid flux in bottom pour automatic casting units.

QUENCH TIME

For 9 K & 14 K quench **15 minutes**.

For 18K quench the button (only) within 2 - 3 minutes after casting. Then proceed to quench the whole flask.

INVESTMENT REMOVAL

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.

UNITED’S Brite-Cast™ Investment Remover works effectively in removing fire scale as well as preventing stress corrosion or surface damage of the cast piece.

REMELTING

We recommend 50% Fresh + 50 % scrap for re-melting.

TECHNICAL ASSISTANCE

Always available... Call 1-800-999-3463 / 1-800-999-FINE
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