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TECHNICAL INSTRUCTIONS FOR P10,000 PARTIAL ALLOY

DUPLICATING

After surveying the model, block out all the excessive undercuts with greaseless clay. This is done so that when the master model is pulled from the hydrocolloid mold it will dislodge with very little resistance. When a model has to be forced from a mold, it will definitely wrap the colloid and cause an ill-fitting framework.

Soak models for 15-20 minutes in liquid water. Blow off excesses.

Duplicating material should pour at approximately 130°F

Bench set for 10min. then immerse flask in circulating water of approximately 70°F possibly wait 1½ hours before removing master model from mold.

Carefully remove master model from mold with either a light flow of air using an air gun or use two knives on either side of the model- pulling straight upward to dislodge.

INVESTING

Mix investment T-60 at 26cc water to 100g of powder. Use spatula by hand 45 seconds to one minute (if mechanically mixed 20 seconds) Use room temperature water. Let set for one hour.

Remove model from mold trim on model grinder, wash under faucet and blow dry.

Place in drying oven at 900°F for 1 to 1½ hours depending on the number of refractions. Models must be completely free of moisture.

Dip in "cold dip" for to 1½ minutes. Set models on heels to drain off excess dip. Let dry overnight or if needed the same day for waxing, return to cooled down oven of 200°F or less, or under heat lamp for ½ hour.

WAXING

Wax in usual manner.

SPRUNG

Sprue with 8 gauge rod, wax. Run 12 gauge sprues to central bars.

INVESTING

Invest for casting by first taking a thin a thin mix (28cc – 100gr) of investment and paint over entire model covering the wax up. Use either a plaster spatula or a heavy brush.

When painted portion has set, Invest in a split ring using the same water powder radius. Usually you mix for a 350gr or 500gr ring, leave set for 1 hour before placing in furnace, remove split rings. Any ring other than cardboard will restrict expansion.

BURNOUT

Burnout takes place in approximately 2 hours from cold furnace to 1350°F. Then heat soak a minimum of 1 hour depending on how many castings are being run.

CASTING

Cast with induction casting machine. Spin arm for 1-15 seconds after melt. Let castings bench cool to room temperature. Do not quench.

FINISHING

Break out castings and blast.

Rough finish us usual manner. Sand blast again prior to immersing in depilatory.

Place in depleting machine for ½ hour at 8amps. If small pits appear on the surface of the bar, reduce amperage and increase time to depilating.

Rubber wheels and polish, Use a B-24 brush to bring a high luster to casting before felt wheel high shine. When polishing, brush hard enough to warm casting.

WARNING

Contains Nickel and should not be used for individuals with a known Nickel sensitivity. Contains 1% Beryllium- Beryllium dust can be toxic-do not inhale. Grind and polish with adequate ventilation only.