



EX CASTING GOLD ALLOY TECHNIQUE OUTLINE

EX is a Type IV, extra-hard, casting gold alloy for long span bridges, partial dentures.

Spruing: Straight or reservoir sprues may be used. The sprue cross-section area should be no less than the heaviest cross section area of the pattern. Sprues should be attached to the heaviest part of the pattern. If a reservoir sprue is used, the reservoir should be no more than 1/16 inch from the pattern.

Investment and Burnout: Use Aurivest investment or equivalent. The pattern should be covered by 1/4 inch of investment. Burnout at 1150° F for a minimum of 45 minutes or according to the investments manufacturer's recommended time.

Casting: If a spring loaded centrifugal casting machine is used, lock casting machine arm in the position after winding three full turns. If any previously melted alloy is used, at least 1/3 of the total should be new alloy. A gas oxygen torch can be used for most efficient results. Casting flux is not recommended. Precautions should be taken to avoid overheating alloy. The oxygen pressure regulator should be set as low as possible to still attain the inner cone of the flame at 1/2 inch in length (about 10 psi). Cast at a temperature where the metal appears to flow freely. The casting can be quenched after the button no longer has any red color for most applications. If maximum hardness and strength is required, allow the casting to bench cool to room temperature.

Investing and Finishing: Remove adhering investment with brush or sandblast with aluminum oxide. Standard polishing techniques used for casting gold alloys are applicable.

Recommended Solder: 585