



BOCRAFT D

EXTRA HARD

WHITE - BONDING - PALLADIUM +2% GOLD

Pd=78%, Cu=10.5%, Au=2%, Ga=9.5%

- 2% gold in the alloy gives a superb finish and lustre to the final restoration
- Excellent oxide formation/porcelain bonding
- High tolerance castings for single and multiple units

Properties:

MELTING RANGE	1120 - 1190°C. Cast at 1290°C
DENSITY	10.7 g/cm ³
HARDNESS	326 HV2.5 - After porcelain firing
MODULUS OF ELASTICITY	92 GPa - After porcelain firing
0.2%PROOF STRESS	727 MPa - After porcelain firing
ELONGATION	4% - After porcelain firing
THERMAL EXPANSION COEFFICIENT	13.9 µm/m/°K (20 - 500°C)

Working Procedure:

PRE-HEATING AND INVESTMENT

Use only high quality phosphate bonded carbon free investment. Pre-heating at 900°C for 30 - 120 minutes according to flask size, usually around 45 minutes.

CASTING

Casting temperature is 1290°C. Use a ceramic carbon free crucible. If you use torch melting, ensure that there is no carbon in the flame, i.e. the flame should not have any yellow coloration. IMPORTANT: You should not severely quench this alloy. Before breaking out allow the unit to slow cool in the investment.

FINISHING & CLEANING

Only use aluminium oxide, carbide burrs or ceramic bonded stones, then boil in distilled water, steam clean or use ultrasonic with distilled water for at least 5 minutes.

DEGASSING AND OXIDATION

If vacuum degassing is used (not essential) hold the unit at 960°C for 3 minutes prior to oxidising. As a rule, oxidise for 2 minutes in air at the same firing temperature that is to be used for the first layer of opaque - usually 960°C. The oxidation layer is usually charcoal grey in colour and should be even over the surface of the restoration. If patchy, then air blast the oxide away and re-oxidise. It is not necessary to slow cool during porcelain firing.

SOLDERING

Pre-porcelain firing use Charles Booth 1090°C white; post-porcelain firing use Charles Booth 750°C white. Use a low aggressive flux when soldering to ensure no etching of existing porcelain.

PRODUCED TO NHS/MDD REQUIREMENTS AND COMPLIES WITH ISO 9693:2000