



BOCRAFT A

EXTRA HARD

WHITE - BONDING - PALLADIUM/SILVER

Ag=35.2%, Pd=53.5%, Sn=8.5%, In=2%, Others=0.8%

- A well established proven economic bonding alloy with good re-castability
- High tolerant castings for single and multiple units
- Excellent oxide formation for fine porcelain bonding

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:

This silver containing alloy is used extensively with no porcelain greening effects. Most current porcelains are produced to completely eliminate greening. Your porcelain manufacturer should give you full details of compatibility with silver containing alloys.

PRE-HEATING AND INVESTMENT

Use only high quality phosphate bonded carbon free investment. Hold for 45 minutes at 900°C.

CASTING

Casting temperature is 1340°C. Use a ceramic carbon free crucible. IMPORTANT. Do not quench - allow the alloy to cool slowly in air after casting.

FINISHING & CLEANING

Use aluminium oxide stones, 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.

PORCELAIN - MOST IMPORTANT

Each porcelain firing must have a slow cool; Hold at 850°C for 5 minutes, then slowly lower the platform. This ensures that the expansion differences between the metal and porcelain do not cause cracking during cooling. Cracking in the porcelain may occur through thermal expansion differences if you do not follow this procedure.

SOLDERING

Pre-porcelain firing use Charles Booth 1030°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