

# Alloys of Non-precious metal

## 1. Alloys of Non-precious metal(비금속 합금)

1. ceramic powder가 porcelain ion( ),
  2. Gold margin oven
  3. solder joint 960 metal gas
  4. porcelain degassing 가
  5. porcelain
  6. ( ) crown Cr-Ni
1. ceramic material( )
  2. porcelain 가 29 14 Ni-Cr
  - 가 Fe( ), In( ), Sn( ) 가 가 Porcelain 2 가 porcelain
  - 가 coping coping porcelain Bridge 가
  - cr-co casting coping 가
  - .(gold 36%/oz). lathe, 3. Ni-Cr 2450 precious 2150 porcelain 1760 Metal 가 porcelain metal 가
  4. heating cycle
  5. 가

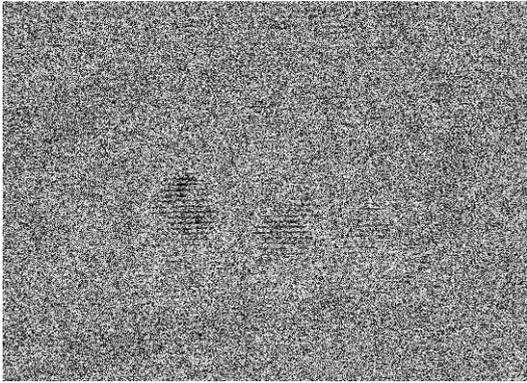


Fig 1. porcelain fusing cementing時 porcelain fractures. coping

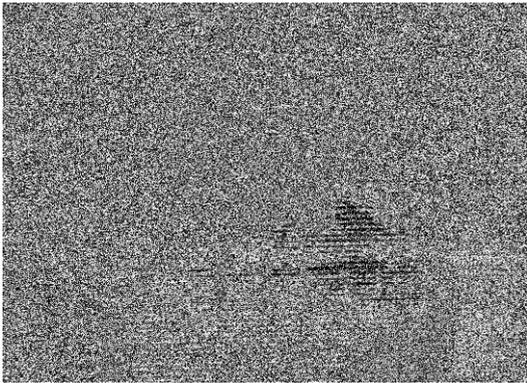


Fig 2. reservoir connects distortion wax coping special sprues plastic dies

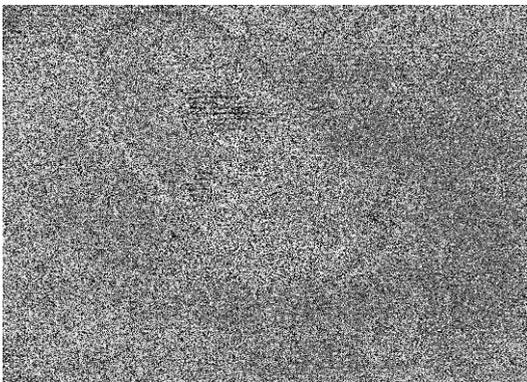


Fig 3. ingots alloy casting

inlay type gold Ni-Cr 2-power exploxrr

Cr-Ni technipue  
 wax up metal  
 Porcelain ( )  
 wax ( )  
 10gauge plastic sprue reservoir  
 Splints 가  
 sprue sttern  
 wax sprue plastic rod  
 가 , rod ( ) coping coping  
 가  
 sprue rod former wax  
 Wax pattern sprue가 wax  
 Wax plastic 가  
 wax bead (cavity)  
 Pattern sprue former surfactant  
 ring  
 Ring sprue former  
 Whip-Mix  
 mix 60g powder 5ml  
 2ml 가 spatula  
 powder  
 Vacuspat Unit  
 45 10  
 Ring  
 ring pattern  
 ring ring  
 100 30  
 Ring furnace 600  
 가 Oven  
 1,650 가 ring 30 heat soak  
 mold  
 Cr-Ni  
 ring arm  
 ( )  
 ring )

crucible  
 type  
 asbestos line  
 ( Ni-Cr gas가 Ni  
 ).  
 Metal 가 torch (15  
 pound/inch<sup>2</sup>) + propan gas(20pai)  
 #5

welding . Ring casting arm  
 2 가  
 ring bench cooling . sprue lathe

hand piece carbide bur  
 Coping # 4 or  
 # 6 carbide bur  
 Die master model( )  
 Coping chloroform rouge coat  
 die . Die master

model  
 splint ≡  
 Soldering  
 ( 6-7). Margin rubber wheels

porcelain 가  
 lingual apron Kelly clamp  
 50 μ Aluminous oxide  
 sandblast . Sandblasting unit  
 90~100psi

aluminous oxide  
 clump가  
 Sandblasting unit aluminous oxide  
 metal  
 . Porcelain metal

Porcelain porcelain Jacket  
 Cr coping .  
 가 porcelain  
 coating cover  
 porcelain coping .

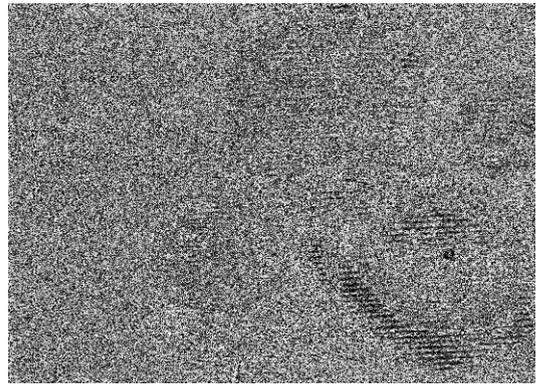


Fig 4. Metal 50 aluminous oxide  
 blasted stone  
 50 glass beads blasted

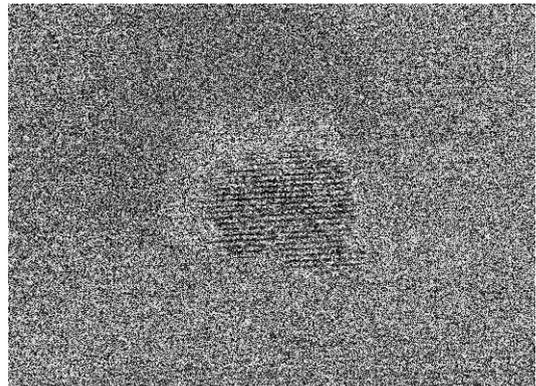


Fig 5. metal collar dentin porcelain  
 over bisquit bake porcelain metal  
 Juntion black line

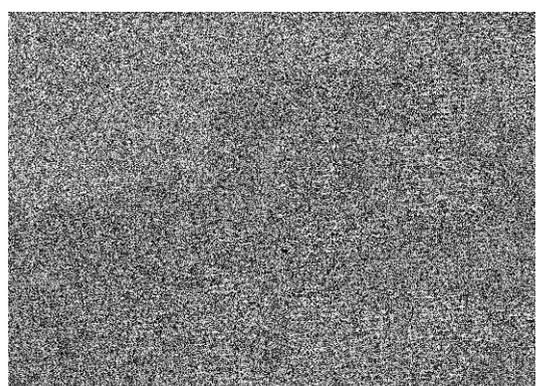


Fig 6. soldered casting body 50 aluminous  
 oxide blasted porcelain

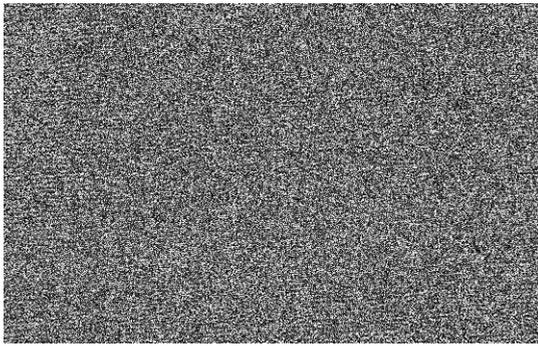


Fig 7. 100 metal solder joint oxide가



Fig 8. (P) metal (S) solering (40) CrNi alloy ceramic tapred

1mm<sup>2</sup> 가  
 coping porcelain  
 Aluminous oxide sandblasting  
 mm<sup>2</sup> Ni-Cr 가  
 opaque ceramic .metal layer 가

1.

2.

가  
 porcelain  
 Ni-Cr

Ni-Cr 가  
 10  
 forcep  
 metal conditioner  
 porcelain Metal  
 conditioner Boron 3가

1.

2. ceramic oxide

3. opaque

porcelain 가

Muffle 700 가

가 935 1

32 . 960

oven 가

가

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## || . Analysis of failures

3가 가  
 Class : porcelain  
 Class : porcelain ( )  
 Class : porcelain metal

Porcelain 가 Class  
 Ni-Cr

1. porcelain

2. porcelain condensation  
 3. centric  
 4.

Class porcelain 가 porcelain

1. opaque metal  
 2. solder 가  
 3.

Class Class Class  
 가

1. frame work design  
 pontic metal porcelain 가  
 가 Class

Class

vita porcelain  
 Vita porcelain metal  
 Uni-bond Ni-Cr  
 Cr-Ni ADA specification( )

, solder metal porcelain

## 참고 문헌

1. Plastic sprues—Unitek Unibond Sprues—Unitek Corp., 2724 South Peck Road, Monrovia, CA 91016
2. Plastic rods—Belle De St. Clair, 16147 Valerio Street, Van Nuys, CA 91406.
3. Aesbestos substitute—Dentsply Kaoliner, York, PA 17404.
4. Whip Mix High Temp Casting Investment—Whip Mix, 361 Farmington Avenue, Louisville, KY 46217.

5. Vacuspat containers #6500 500ml Whip Mix, 361 Farmington Avenue, Louisville, KY 46217.
6. Vaccuspat Whip Mix Combination Vacuvestor Model D—Whip Mix, 361 Farmington Avenue, Louisville, KY 46217.
7. Vibrator—Buffalo #2—Buffalo Dental Mfg. Co., Brooklyn, NY 11207.
8. Burnout oven—Unitek Automatic Dual-Temp Burnout Furnace—Unitek Corp., 2724 South Peck Road, Monrovia, CA 91016.
9. Centrifugal casting machine—Kerr Manufacturing Co., Romulus, Mich.
10. Crucible—Wesgo Type A—Western Gold & Platinum Co., 477 Harbor Blvd., Belmont, CA.
11. Torch—Victor Model U 27.
12. Orifice—Casting—Victor 7-T-17, Soldering—Victor 5-T-17.
13. Sandblaster—Comco Micro Blaster—Comco Inc., 9421 Telfar Avenue, Sun Valley, CA 91352.
14. Keystone Disc—National Keystone Products, 2134 Market St., Philadelphia, PA.
15. High Speed Lathe—Ray Foster Model 5A—Foster Dental Equipment, 5421 Commercial Drive, Huntington Beach, CA 92649.
16. High Speed air driven handpiece—Shofu Model 220Z—Shofu Dental Corp., 186 Constitution Drive, Menlo Park, CA.
17. Rubber Wheels for polishing—“Nibs” Red Knife Edge, and Shofu Brownie Points—Shofu Dental Corp., 186 Constitution Drive, Menlo Park, CA.
18. Surgident Multi-Form Paste—Lactona Corp., Philadelphia, PA 19114.
19. Compressor—Oilless Compresso-Dri A8T—Air Techniques Inc., New Hyde Park, NY.
20. VITA Porcelain—Unitek Corp., 2724 South Peck Road, Monrovia, CA 91016.
21. Bonding agent—Unitek Corp., 2724 South Peck Road, Monrovia, CA 91016.
22. Ultramat—Unitek Corp., 2724 South Peck Road, Monrovia, CA 91016.
23. VITA Opaque—Paint on—Unitek Corp., 2724 South Peck Road, Monrovia, CA 91016.
24. VITA Incisal Porcelain—Unitek Corp., 2724 South Peck Road, Monrovia, CA 91016.