## 도재용착주조관 변연의 적합성에 관한 연구 ||

## 원광보건전문대학 치과기공과

## Abstract

## A Study of Margin Fittness in Metal-bond Porcelain Crown

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This study was undertaken to know the difference that margin fittness in metal bond porcelain crown.

When we use porcelain precious metal and non-precious metal as porcelain-fused metal, the results were as following.

- 1. The precious metal was showed best result in margin fittness and shade.
- 2. The non-precious metals were showed good results, especially Gemini was excellent, but that was not good than precious metal.
- 3. 10k. gold plating on non-precious metal cap showed same result as nonprecious metal in margin fittness, and not good in shade.
- 4. When we use the non-precious metals at upper part of crown, and using precious metal in 2mm cervical portion, the margin fittness were very good, and the results same as full veneer precious metal.

	1. 서 언		가 가 16~20%가	<b>ا</b> ل	
가				가	
Bridge		Crown		가	가
	Caries	Caries		가	

가 Shoulder , ,	2. Spruing 및 매몰 8 gauge Wax Cingulum Sprue 16 gauge Wax Air Vent . Dry Asbestos
•	가 80 Whip-Mix Ceramco Investment 攪拌 2 .
Ⅱ <b>. 재료 및 방법</b>	3. 소환 및 주조 500~1650 (900~950) 30 가
1. 모형의 제작 및 조각 Die shoulder Rubber Base	가 New Metal
, G-C Blue Inlay	4. Doggoping
1 Metal-bond Porcelain	4. Degassing 1200 ~ 1825 6 1 100 1825 1925 15 .
Soft wax Dipping  Die Hard Wax Die Undercut Wax Pattern Pattern Wax	5. 치경부 조작 , Degassing Blue Inlay Wax 2 1900 5 Degassing .
Die Wax Pattern 1.2mm . Wax Pattern Round Convex	6. Opaque  Ceramco Porcelain #62 Powder  Creamy Mix
	. Tissue Paper 5 1200 ~ 1750 100 1750 ~ 1830 Opaque 2 . 7. Body Build -up 15 1200 ~ 1700
1. a. 가 b.	1 100 (Vaccum 27 inch), 1700~1800 . Spatular Body Powder Knife

Model Tissue Paper

Powder Shade Rubber Wheel Ultra-

sonic Cleaner Opaque 10

1mm

10. Final Glaze Bake

Thermo Couple Door 1450 100 1750

Ⅲ. 결과 및 고찰

삼신도재금합금

Vera-bond

Uni t - bond

Gemini [

Rexillium III

Vera — bond

Uni t-bond Gem ni

Rexillium III

Vera - bond

Vita

사 용 부 위

치관전체

치경부변연

치경부변연을

제외한 치관

전체

치관전체

1. 치관전체를

2. 치경부변연

만 도금

도금

Vita

8. 치경부 처리

1/3 30° 가

Body Knife 1950

Ceramco Porcelain #66 Incisal Permadent 가 Oro P,

류

귀금속+비금속

도

Powder 가 Micro-bond

V.M.K. Porcelain Porcelain Build up Body

Knife Undercut

Cervical Margin 1. 가

분 금 속 명 Cervical Margin Knife Opaque가 삼신도재금합금

Powder 15

Crack

15

9. Countouring Vera Disc, Diamond Point

Body가

가 **Embrasure** Inverted-Cone Bur

Diamond Point 가

2.			(%)	)						
제 품 성 분	Al	Ве	Со	Cr	Fe	Mn	Мо	Ni	Si	기타
Gemini [	3.21	1.74	0.15	12.00	_	_	2.06	80.81	0.25	C.Sn.Cu
Perm aden t	_	1.80	_	12.20	_	_	2.20	Bal 80,09) Bal	0.96	В
Vera—bond	0.05	0.01	0.10	15.00	18.96	1.50	0.05	(63.48	0.85	_
Unit bond	1.00	_	_	18.00	0.50	4.50	3,50	Bal (72,20		_
Rexillium II	2,22	1.60	0.50	11.39	2.00	0.02	1.99	80.48	0.50	_

Degudent가	Degusser	□V <b>. 적 요</b>
1967	NIK 가	Shade ,
Au기 Pd가 기 Audhl Pt Pd	, ,	4가 1. 가 2.
· Opaque · 가	N-Cr 가 가	가 Gemini 가 가 3. 10K Gold Shade 가 .
7 14 19 1/2	가 . '-8 · 가 가	Degassing 2mmwjd . 참고문헌
2mm	, 가	<ol> <li>筒井英明:金屬燒付 Porcelain에 대하여 醫用器材研究報告, 5:11, 1971.</li> <li>西村文夫:陶材燒付用 合金에 대하여 齒材器誌, 31(1):13-20, 1974</li> <li>太田守,加我正行:金合金에 대하여,齒界展望,46(5):729-742, 1975</li> <li>American Dental Association: Guide to Dental Material and Devices (4 th ed.) 1968-19</li> </ol>
Degassing .	4.2g,	69, 29-36. 5. D.L. Smith A, P. Burnett, M.S. Brooks and D. H. Anthony: Iron platinum Hardening in Casing Gold for use with Porcelain. J. Dent. Res., 49(2): 283-288. 1970.
0.4g, Margin 0.7g, Rest가 2.9	0.2g, Crown	<ul> <li>6. J. J Tucillo, J. P. Neilson: Creep and sag properties of a Porcelain Gold Alloy. J. Dent. Res., 46(3): 579-583. 1967.</li> <li>7. J. N. Nally: Chemico-Physical Analysis and</li> </ul>
가	Shade	Mechanical Tests of the Ceramco-Metallic complex. Int. Dent. J., 18(2): 309-323, 1968.

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