

CREATION WILLI GELLER INTERNATIONAL - SIMPLY BRILLIANT

WILLI GELLER  
*Creation*

INSTRUCTIONS FOR USE  
CREATION ALUMINIUM OXIDE CERAMICS



Willi Geller, Oral Design Zürich

AV

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## INTRODUCTION



Creation AV is a bonding porcelain developed specifically for use with aluminiumoxide porcelain (Procera, In-Ceram etc.). The aesthetics, stability and technique are of the same renowned high quality which is the hallmark of Creation products.

«The more complex the technology, the simpler it should be to use.»

Willi Geller



### FRAME

The coping is shortened slightly at the cervical margin to create space for the shoulder porcelain. This makes it easier to attain a natural shade at the neck of the tooth.

### SHADE LINER

The AV shade liner was developed specifically for the AV technique to reduce the value of the core material. It has been carefully matched with each shade group and creates a radiant, fluorescent and vital hue on the coping.

A thin layer (approx. 0,2 mm) of AV shade liner is applied. The thickness of the layer determines the shade intensity: A thick layer will increase chroma, a thin layer will decrease chroma. Mixing in one or two drops of Universal Liquid makes the mixture creamier and easier to apply over the surface.

**Fluorescence:** The fluorescent effect of the AV shade liner is clearly visible.



5a



5b

### SHOULDER FIRING

The pre-sealed master die is coated with Creapen separator. The shoulder porcelain is applied, condensed, and the coping removed from the die and fired. This procedure is repeated if a second firing is required.



6a



6b

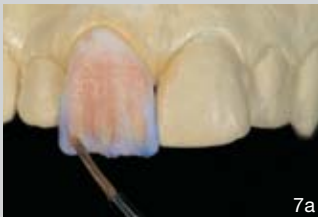
### DENTINE BUILD-UP

The dentine is built-up to the required shape.

### ENAMEL BUILD-UP

The incisal area is built-up with various incisal and transparent porcelains.

The mamelon effects are applied in the dentine incisal area. The labial surface is then covered using various opal and pearl incisal porcelains as well as transparent porcelains.

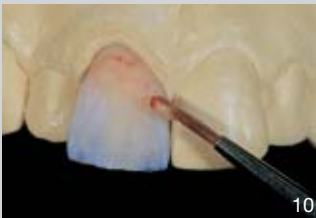
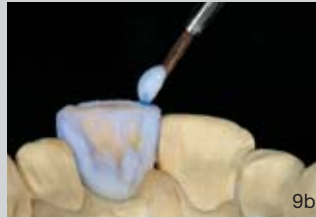


7a



7b

Finally bluish mesio-distal wedges are placed using T11.



### ENAMEL BUILD-UP

A thin wash of OD32 is applied in an incisal direction to the palatal contour of the coping (do not extend to the incisal edge!). We recommend coating the palatal fossa with HT53-54. Finally the mesio-distal marginal ridges or cusp formations are built-up using incisal SI2.

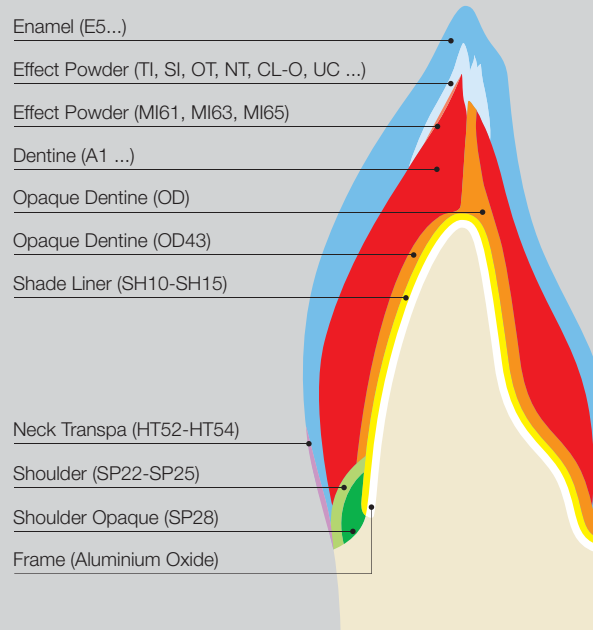
### SECOND FIRING

The shade of the crown can also be altered, if required, when adjusting the shape. Adding clear or stained transparent porcelain can restore the necessary depth to a shade which is too light. Using PS incisals can lighten a crown which is too dark.



## GLAZE FIRING

Glazing is crucial to the textural appearance of a restoration. For this reason custom firing cycles must be used. If the surface is to be polished mechanically after glazing, using felt and pumice, then a lower temperature range should be used when glazing.





The Creation AV crown fitted in the mouth.



## FIRING CHART

	Preheating Temperature	Drying Time	Raise of Temperature	V	Final Temp.	Holding Time	Appearance
Liner Firing	580 °C	2 min.	80 °C/min.	+	950 °C	1 min.	Slightly shining
Shoulder Firing	600 °C	2 min.	80 °C/min.	+	950 °C	1 min.	
1 <sup>st</sup> Dentine Firing	580 °C	6 min.	55 °C/min.	+	910 °C	1 min.	
2 <sup>nd</sup> Dentine Firing	580 °C	6 min.	55 °C/min.	+	900 °C	1 min.	
Glaze Fring	600 °C	2 min.	55 °C/min.	-	910 °C	-	Shining
Glaze Firing with Glaze Powder	480 °C	2 min.	45 °C/min.	-	880 °C	1 min.	

The firing parameters given above are guidelines, which always need to be adjusted to the furnace used for firing and the situation of the furnace. The important thing is to obtain the right firing result.

## COLOUR CHART

Vita® Shade		A1	A2	A3	A3,5	A4	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4
Shade Liner	6	SH-10	SH-10	SH-11	SH-11	SH-11	SH-12	SH-10	SH-13	SH-13	SH-12	SH-14	SH-14	SH-11	SH-15	SH-15	SH-15
Opaque Dentine Modifier	5	OD-32 havanna			OD-37 curry			OD-41 orange			OD-43 ivory			OD-44 cuba			
Dentine	16	A1	A2	A3	A3,5	A4	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4
Enamel	4	E58	E58	E59	E59	E60	E57	E59	E59	E59	E60	E59	E59	E60	E60	E59	E59
Clear	2	CL-0										Window UC					
Transpa	6	NT neutral		OT opal			TI-1 blue		TI-3 rose		TI-4 yellow		TI-5 grey				
Effect Enamel	7	PS-0 white		PS-3 orange		SI-02 medium yellow		SI-04 light orange		SI-06 heavy orange		SO-10 blue		SO-11 orange			
Neck Transpa	3	HT-52 khaki					HT-53 sand					HT-54 honey					
Shoulder Powder	5	SP-22 flamingo			SP-23 sand			SP-24 gold		SP-25 red brown			Sp-28 opaque yellow				
Make In	3	MI-61 ivory					MI-63 honey yellow					MI-65 gold					
Approximal Dentine	2	AD-1 light yellow							AD-2 orange								
Gingival	1	G-2 dark pink															
Glaze	1	Glaze-GL															
Bleach Shade Liner	1	O-AB															
Bleach Dentine	3	BD-A					BD-B					BD-B0					
Bleach Enamel	1	S-AB															
Bleach Shoulder	1	SP-AB															

Vita® is a registered Trademark of Vita Zahnfabrik, H. Rauter GmbH & Co.KG, Bad Säckingen, Germany.

## PHYSICAL PROPERTIES

Properties	Measure	Value	Norm
Dentine Firing	°C	910	
Coefficient Thermal Expansion (25 ° – 500 °C)	2 Firings 4 Firings	6,8 ± 0,3 6,8 ± 0,3	
Glass Transition Temperature	°C	600 ± 10	
Solubility	µg/cm <sup>2</sup>	11	100
Density	g/cm <sup>3</sup>	2,41	
Flexural Strength	MPa (Nmm <sup>2</sup> )	80	min. 50
Median Grain Size	D 50 %	60	

All tested materials conform to EN ISO 9693:2000. The technical and physical values quoted relate to samples produced in-house to our own measuring instruments.



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