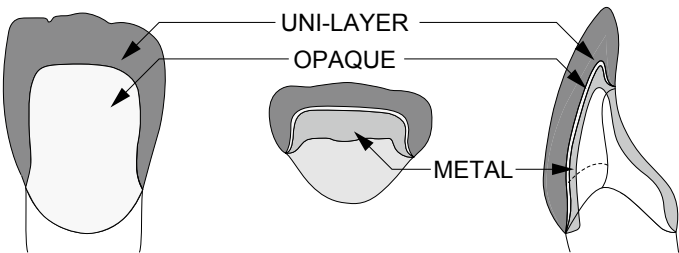
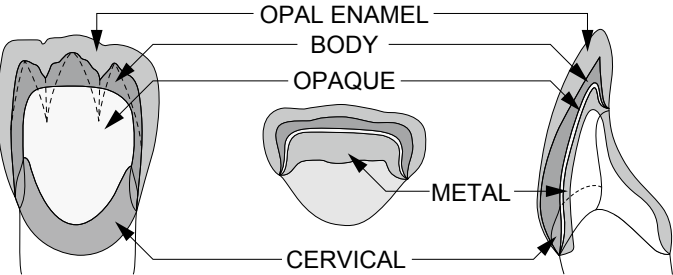


LAYERING DIAGRAM

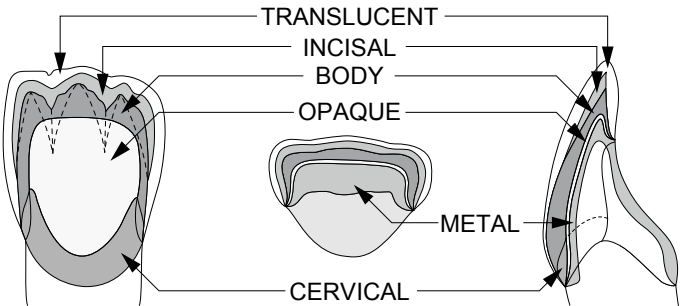
Uni-Layer technique



2-layer technique



3-layer technique



SHADE CHARTS

Basic shades

Shade	A1	A2	A3	A3.5	A4	rootA	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4
Base Opaque	BASE																
Shade Opaque	A ₁ O	A ₂ O	A ₃ O	A _{3.5} O	A ₄ O	rootAO	B ₁ O	B ₂ O	B ₃ O	B ₄ O	C ₁ O	C ₂ O	C ₃ O	C ₄ O	D ₂ O	D ₃ O	D ₄ O
Cervical	–	–	A ₃ B:2 AC:1	A _{3.5} B:1 AC:1	A ₄ B:1 AC:1	AC	–	–	B ₃ B:1 BC:1	BC	–	C ₂ B:2 CC:1	C ₃ B:1 CC:1	CC	D ₂ B:1 DC:1	D ₃ B:1 DC:1	DC:2 BC:1
Body	A ₁ B	A ₂ B	A ₃ B	A _{3.5} B	A ₄ B	rootAB	B ₁ B	B ₂ B	B ₃ B	B ₄ B	C ₁ B	C ₂ B	C ₃ B	C ₄ B	D ₂ B	D ₃ B	D ₄ B
Opal	OPAL57	OPAL58	OPAL59	OPAL59:1 OPAL60:1	OPAL60	OPAL60	OPAL57	OPAL58	OPAL59	OPAL60	OPAL58	OPAL58	OPAL59	OPAL60	OPAL58	OPAL59	OPAL59
Incisal	58	58	59	59	60	60	57	58	59	60	58	58	59	60	59	60	59
Translucent	T																

Whitening shades

Shade	W0	W1	W2	W3
Base Opaque	BASE			
Shade Opaque	W ₀ O	W ₁ O	W ₂ O	W ₃ O
Cervical	–	–	–	–
Body	W ₀ B	W ₁ B	W ₂ B	W ₃ B
Opal	OPAL55	OPAL56	OPAL56:2 OPAL57:1	OPAL56:1 OPAL57:2

Opaque Dentin

	0	1	2	3	3.5	4	root
A	–	OD-A ₁	OD-A ₂	OD-A ₃	OD-A _{3.5}	OD-A ₄	OD-rootA
B	–	OD-N:1 OD-B ₂ :1	OD-B ₂	OD-B ₂ :1 OD-B ₄ :1	–	OD-B ₄	–
C	–	OD-N:1 OD-C ₂ :1	OD-C ₂	OD-C ₂ :1 OD-C ₄ :1	–	OD-C ₄	–
D	–	–	OD-N:1 OD-D ₃ :1	OD-D ₃	–	OD-D ₃ :1 OD-B ₄ :1	–
W	OD-W ₀	OD-W ₀ :2 OD-N:1	OD-W ₀ :1 OD-N:2	OD-N	–	–	–

Margin

	0	1	2	3	3.5	4	root
A	–	A ₁ M	A ₂ M	A ₃ M	A _{3.5} M	A ₄ M	rootAM
B	–	NM:1 B ₂ M:1	B ₂ M	B ₂ M:1 B ₄ M:1	–	B ₄ M	–
C	–	NM:1 C ₂ M:1	C ₂ M	C ₂ M:1 C ₄ M:1	–	C ₄ M	–
D	–	–	NM:1 D ₃ M:1	D ₃ M	–	D ₃ M:1 B ₄ M:1	–
W	W ₀ M	W ₀ M:2 NM:1	W ₀ M:1 NM:2	NM	–	–	–

PHYSICAL PROPERTIES

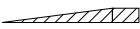
Coefficient of thermal expansion
Glass transition point

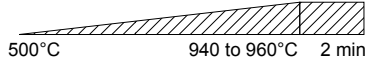
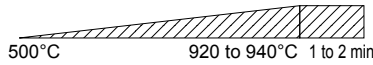
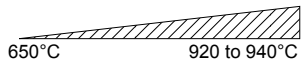
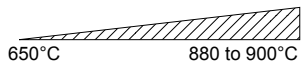
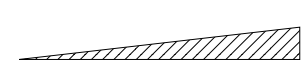
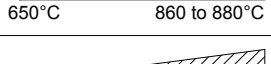
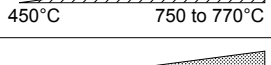
		Coefficient of thermal expansion (25-500°C)	Glass transition point (°C)
Base Opaque	2.Firing	11.5 x 10 ⁻⁶ K ⁻¹	598
	4.Firing		
Shade Opaque	2.Firing	12.4 x 10 ⁻⁶ K ⁻¹	594
	4.Firing		
Margin	2.Firing	13.0 x 10 ⁻⁶ K ⁻¹	594
	4.Firing		
Cervical, Opaque Dentin, Body, Enamel, Translucent, Uni-Layer	2.Firing	12.3 x 10 ⁻⁶ K ⁻¹	557
	4.Firing		
Cervical Trans (Cervical Trans, Gum)	2.Firing	12.9 x 10 ⁻⁶ K ⁻¹	548
	4.Firing		
Correction	2.Firing	11.7 x 10 ⁻⁶ K ⁻¹	528
	4.Firing		

Solubility test
(ISO specification: below 100µg/cm²)

	Solubility amount (µg/cm²)
Body, Enamel	31.7

FIRING SCHEDULE

 Vacuum firing  Air firing

	Drying and Preheating furnace entrance (min)	Temperature rising speed (°C/min)	Firing schedule
Base Opaque	5 to 7	50 to 60	
Shade Opaque	5 to 7	50 to 60	
Margin	5 to 7	50 to 60	
Cervical	5 to 7	50 to 60	
Body, Opaque Dentin, Opal, Opal Aqua, Opal Effect, Enamel Effect, Incisal, Uni-Layer, Color Effect, Cervical Trans	5 to 7	50 to 60	
Self-glaze	5 to 7	50 to 60	
Gum (First)	5 to 7	50 to 60	
Gum-glaze	5 to 7	50 to 60	
Correction (First)	5 to 7	50 to 60	
Correction-glaze	5 to 7	50 to 60	

SYSTEM AND SHADES

System		Shades
Opaque	Base Opaque (1 shade)	BASE
	Shade Opaque (21 shades)	A ₁ O, A ₂ O, A ₃ O, A _{3.5} O, A ₄ O, root AO, B ₁ O, B ₂ O, B ₃ O, B ₄ O, C ₁ O, C ₂ O, C ₃ O, C ₄ O, D ₂ O, D ₃ O, D ₄ O, W ₀ O, W ₁ O, W ₂ O, W ₃ O
	Opaque Effect (7 shades)	OM-G, OM-O, OM-Br, OM-Y, OM-BG, OM-LP, OM-DP
Cervical (4 shades)		AC, BC, CC, DC
Margin (14 shades)		W ₀ M, NM, A ₁ M, A ₂ M, A ₃ M, A _{3.5} M, A ₄ M, rootAM, B ₂ M, B ₄ M, C ₂ M, C ₄ M, D ₃ M, CLM
Margin Effect (6 shades)		LPM, DPM, OrM, BrM, MLM, MDM
Body (21 shades)		A ₁ B, A ₂ B, A ₃ B, A _{3.5} B, A ₄ B, rootAB, B ₁ B, B ₂ B, B ₃ B, B ₄ B, C ₁ B, C ₂ B, C ₃ B, C ₄ B, D ₂ B, D ₃ B, D ₄ B, W ₀ B, W ₁ B, W ₂ B, W ₃ B
Opaque Dentin (13 shades)		OD-A ₁ , OD-A ₂ , OD-A ₃ , OD-A _{3.5} , OD-A ₄ , OD-rootA, OD-B ₂ , OD-B ₄ , OD-C ₂ , OD-C ₄ , OD-D ₃ , OD-W ₀ , OD-N

System	Shades
Opal (6 shades)	OPAL 55, OPAL 56, OPAL 57, OPAL 58, OPAL 59, OPAL 60
Incisal (4 shades)	57, 58, 59, 60
Opal Effect (9 shades)	OPAL T, OPAL SL, OPAL MI, OPAL WB, OPAL WE, OPAL OC, OPAL AM-R, OPAL AM-Y, OPAL AM-V
Enamel Effect (6 shades)	T, BT, PT, GT, OT, T-Glass
Opal Aqua (8 shades)	AQUA 55, AQUA 56, AQUA 57, AQUA 58, AQUA 59, AQUA 60, AQUA T, AQUA SL
Uni-Layer (2 shades)	HT, LT
Cervical Trans (5 shades)	CT-A, CT-B, CT-R, CT-W, CT-CL
Color Effect (10 shades)	MP, MY, Mlv, RED, Y, O, G, W, Br, BI
Gum (6 shades)	Gum-LP, Gum-DP, Gum-V, Gum-Or, Gum-R, Gum-P
Correction (3 shades)	ADD-ON B, ADD-ON T, CPM FINE