

IPS Classic – Firing parameters

Method A – IPS Classic Opaquer

Firing parameters for the 1st opaquer firing (wash firing) – IPS Classic Opaquer

T	B	S	t ↗	H	V ₁	V ₂
980°C 1796°F	403°C 757°F	6 min. 6 min.	80°C 144°F	1 min. 1 min.	550°C 1022°F	979°C 1794°F

Firing parameters for the 2nd opaquer firing – IPS Classic Opaquer

T	B	S	t ↗	H	V ₁	V ₂
970°C 1778°F	403°C 757°F	6 min. 6 min.	80°C 144°F	1 min. 1 min.	550°C 1022°F	969°C 1776°F

Firing parameters for the 1st margin shoulder firing – IPS Classic Opaquer

T	B	S	t ↗	H	V ₁	V ₂
950°C 1742°F	403°C 757°F	6 min. 6 min.	80°C 144°F	1 min. 1 min.	550°C 1022°F	949°C 1740°F

Firing parameters for the 2nd margin shoulder firing – IPS Classic Opaquer

T	B	S	t ↗	H	V ₁	V ₂
940°C 1724°F	403°C 757°F	4 min. 4 min.	80°C 144°F	1 min. 1 min.	550°C 1022°F	939°C 1722°F

Method B – IPS Lowpaque

Firing parameters for the 1st opaquer firing (wash firing) – IPS Lowpaque

T	B	S	t ↗	H	V ₁	V ₂
920°C 1688°F	403°C 757°F	6 min. 6 min.	80°C 144°F	1 min. 1 min.	450°C 842°F	919°C 1686°F

Firing parameters for the 2nd opaquer firing – IPS Lowpaque

T	B	S	t ↗	H	V ₁	V ₂
910 °C 1670 °F	403°C 757°F	6 min. 6 min.	80°C 144°F	1 min. 1 min.	450°C 842°F	909°C 1668°F

Firing parameters for the 1st margin shoulder firing – IPS Lowpaque

T	B	S	t ↗	H	V ₁	V ₂
930°C 1706°F	403°C 757°F	6 min. 6 min.	80°C 144°F	1 min. 1 min.	550°C 1022°F	929°C 1704°F

Firing parameters for the 2nd margin shoulder firing – IPS Classic Lowpaque

T	B	S	t ↗	H	V ₁	V ₂
930°C 1706°F	403°C 757°F	4 min. 4 min.	80°C 144°F	1 min. 1 min.	550°C 1022°F	929°C 1704°F

Firing parameters for IPS Opaque Dentin (intermediate firing)

T	B	S	t ↗	H	V ₁	V ₂
920°C 1688°F	403°C 757°F	4 min. 4 min.	60 °C 108°F	1 min. 1 min.	580°C 1076°F	919°C 1686°F

Firing parameters for glaze firing without glazing material

T	B	S	t ↗	H	V ₁	V ₂
920°C 1688°F	403°C 757°F	4 min. 4 min.	60 °C 108°F	1 min. 1 min.	0°C 0°F	0°C 0°F

Firing parameters for the 1st dentin and incisal firing

T	B	S	t ↗	H	V ₁	V ₂
920°C 1688°F	403°C 757°F	4 min. 4 min.	60 °C 108°F	1 min. 1 min.	580°C 1076°F	919°C 1686°F

Firing parameters for glaze firing with glazing material

T	B	S	t ↗	H	V ₁	V ₂
900°C 1652°F	403°C 757°F	4 min. 4 min.	60 °C 108°F	1-2 min. 1-2 min.	0°C 0°F	0°C 0°F

Firing parameters for the 2nd dentin and incisal firing

T	B	S	t ↗	H	V ₁	V ₂
910°C 1670°F	403°C 757°F	4 min. 4 min.	60 °C 108°F	1 min. 1 min.	580°C 1076°F	909°C 1668°F

Firing parameters for the corrective firing – IPS Classic Correction Powder (1:1)

T	B	S	t ↗	H	V ₁	V ₂
810°C 1490°F	403°C 757°F	4 min. 4 min.	60 °C 108°F	1 min. 1 min.	420°C 788°F	809°C 1488°F

Firing parameters for the stains and characterization firing – IPS Shade / IPS Shade V

T	B	S	t ↗	H	V ₁	V ₂
900°C 1652°F	403°C 757°F	4 min. 4 min.	60 °C 108°F	1 min. 1 min.	0°C 0°F	0°C 0°F

Firing parameters for the corrective firing – IPS Classic Correction Powder (alone)

T	B	S	t ↗	H	V ₁	V ₂
690°C 1274°F	403°C 757°F	4 min. 4 min.	60 °C 108°F	0.5 min. 0.5 min.	420°C 788°F	689°C 1272.2°F

Firing parameters for the stains firing – IPS Stains-P

T	B	S	t ↗	H	V ₁	V ₂
900°C 1652°F	403°C 757°F	4 min. 4 min.	60 °C 108°F	1 min. 1 min.	0°C 0°F	0°C 0°F



These firing parameters represent standard values applicable to the P100, P 200, PX 1 and EP 600 Combi furnaces from Ivoclar Vivadent. The temperatures indicated also apply to furnaces of older generations, such as the P20, P80, P90 and P95. If one of these furnaces is used, however, the temperatures may deviate by ± 10 °C/18 °F, depending on the age and type of the heating muffle.

If a non-Ivoclar Vivadent furnace is used, temperature corrections may be necessary.

Regional differences in the power supply or the operation of several electronic devices on the same circuit may make adjustments of the firing temperatures necessary.

Ceramic furnaces of other manufacturers often feature opening mechanisms different from that of Ivoclar Vivadent furnaces. Therefore, the firing conditions may also differ. Make sure that these varying firing conditions are taken into account when working with IPS Classic.

Remember to calibrate your furnace regularly.

Chromascop shades

Assortment	Materials / Shade groups	white	yellow	light brown	grey	dark brown	Special materials	
IPS Classic	Opaquer (O)	110 120 130 140	210 220 230 240	310 320 330 340	410 420 430 440	510 520 530 540		
	Intensive Opaquer (IO)	white, orange, brown, violet, grey						
	Dentin (D)	110 120 130 140	210 220 230 240	310 320 330 340	410 420 430 440	510 520 530 540		
	Intensive Dentin (ID)	neutral, white, yellow honey, light brown, dark brown, pink, grey, blue, clear pink, red pink						
	Incisal (S)	S3 S1 S1 S1	S1 S2 S2 S2	S5 S5 S5 S2	S4 S4 S1 S4	S4 S2 S5 S3		
	Opal Incisal (OS)	OS3 OS1 OS1 OS1	OS1 OS2 OS2 OS2	OS5 OS5 OS5 OS2	OS4 OS4 OS1 OS4	OS4 OS2 OS5 OS3		
	Transparent (T)	neutral, reddish, greyish, transparent						
IPS Opaque Dentin	Opaque Dentin (Op.D.)	- 120 130 140	210 220 230 240	310 320 - -	410 420 430 440	510 - - -		
IPS Margin	Margin (M)	M1 M2 M2 M3	M3 M3 M4 M4	M6 M6 M5 M5	M9 M9 M9 M9	M9 M7 M7 M8		
	Intensive Margin (M)	M10, M11, M12, M13, M14						
IPS Impulse	Occlusal Dentin (Oc.D.)	brown, yellow, orange						
	Mamelon material (MM)	MM1, MM2, MM3, MM4, MM orange						
	Incisal (S)	yellow-grey, grey						
	Transparent (T)	yellow-grey, grey, blue						
	Molar Incisal (MS)	MS						
	Incisal Edge material (IS)	light yellow, yellow						
IPS Shade	Dentin Stains	110 120 130 140	210 220 230 240	310 320 330 340	410 420 430 440	510 520 530 540		
IPS Stains-P	Characterization Stains	white, orange, bamboo, caramel brown, copper brown, cork brown, mahogany, azure, black						yellow, red, blue

A-D shades

Assortment	Materials / Shade groups	A	B	C	D	Special materials	
IPS Classic V	Opaquer (O)	A1 A2 A3 A3.5 A4	B1 B2 B3 B4	C1 C2 C3 C4	D2 D3 D4		
	Intensive Opaquer (IO)	IO-A	IO-B	IO-C	IO-A/IO-B	IO-white, IO-violet	
	Dentin (D)	A1 A2 A3 A3.5 A4	B1 B2 B3 B4	C1 C2 C3 C4	D2 D3 D4		
	Incisal (S)	S1 S2 S2 S4 S4	S1 S2 S3 S4	S2 S2 S3 S4	S1 S2 S3		
	Transparent (T)	clear, neutral					
IPS Opaque Dentin V	Opaque Dentin (Op.D.)	A1 A2 A3 A3.5 A4	B1 B2 B3 B4	C1 C2 C3 C4	D2 D3 D4		
	Opaque Dentin (Op.D.)	yellow, orange, brown					
IPS Margin V	Margin Material (M)	A1 A2 A3 A3.5 A4	B1 B2 B3 B4	C1 C2 C3 C4	D2 D3 D4		
	Intensive (M)	yellow, orange, brown					
IPS Impulse	Occlusal Dentin (Oc.D.)	orange	yellow	brown	orange, yellow		
	Mamelon Material (MM)	MM1, MM2, MM3, MM4, MM orange					
	Incisal (S)	yellow-grey, grey					
	Transparent (T)	yellow-grey, grey, blue					
	Molar Incisal (MS)	MS					
	Incisal Edge material (IS)	light yellow, yellow					
IPS Shade V	Dentin Stains	A1 A2 A3 A3.5 A4	B1 B2 B3 B4	C1 C2 C3 C4	D2 D3 D4		
IPS Stains-P	Characterization Stains	white, orange, bamboo, caramel brown, copper brown, cork brown, mahogany, azure, black					basic yellow, basic red, basic blue