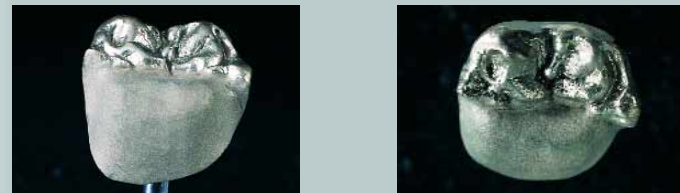


IPS d.SIGN® – Firing parameters (220)

Oxide firing of IPS d.SIGN 98

T	B	S	t ↘	H	V ₁	V ₂
925°C 1697°F	403°C 757°F	1 min. 1 min.	60°C 108°F	5 min. 5 min.	–	–



Oxide firing of IPS d.SIGN 59

T	B	S	t ↘	H	V ₁	V ₂
1010°C 1850°F	403°C 757°F	1 min. 1 min.	60°C 108°F	5 min. 5 min.	450°C 842°F	1010°C 1850°F



Oxide firing of IPS d.SIGN 96

T	B	S	t ↘	H	V ₁	V ₂
950°C 1742°F	403°C 757°F	1 min. 1 min.	60°C 108°F	5 min. 5 min.	450°C 842°F	950°C 1742°F



Oxide firing of IPS d.SIGN 53

T	B	S	t ↘	H	V ₁	V ₂
1010°C 1850°F	403°C 757°F	1 min. 1 min.	60°C 108°F	5 min. 5 min.	450°C 842°F	1010°C 1850°F



Oxide firing of IPS d.SIGN 91

T	B	S	t ↘	H	V ₁	V ₂
1010°C 1850°F	403°C 757°F	1 min. 1 min.	60°C 108°F	5 min. 5 min.	450°C 842°F	1010°C 1850°F



Oxide firing of IPS d.SIGN 30

T	B	S	t ↘	H	V ₁	V ₂
925°C 1697°F	403°C 757°F	1 min. 1 min.	60°C 108°F	5 min. 5 min.	450°C 842°F	925°C 1697°F



Oxide firing of IPS d.SIGN 84

T	B	S	t ↘	H	V ₁	V ₂
1010°C 1850°F	403°C 757°F	1 min. 1 min.	60°C 108°F	5 min. 5 min.	450°C 842°F	1010°C 1850°F



Oxide firing of IPS d.SIGN 15

T	B	S	t ↘	H	V ₁	V ₂
950°C 1742°F	403°C 757°F	1 min. 1 min.	60°C 108°F	1 min. 1 min.	–	–



Oxide firing of IPS d.SIGN 67

T	B	S	t ↘	H	V ₁	V ₂
1010°C 1850°F	403°C 757°F	1 min. 1 min.	60°C 108°F	5 min. 5 min.	–	–



The product lines may vary from country to country.

i Some alloy types require pickling after oxide firing and/or blasting of the oxide layer (observe instructions of the alloy manufacturer). After that, thoroughly clean the framework with steam or in the ultrasonic bath. Oxidation can be considered a 'cleaning firing' and is also used to check the quality of the framework surface.

1st opaquer firing (wash firing)

T	B	S	t ↘	H	V ₁	V ₂
900°C 1652°F	403°C 757°F	6 min. 6 min.	80°C 144°F	1 min. 1 min.	450°C 842°F	899°C 1650°F

2nd opaquer firing

T	B	S	t ↘	H	V ₁	V ₂
890°C 1634°F	403°C 757°F	6 min. 6 min.	80°C 144°F	1 min. 1 min.	450°C 842°F	889°C 1632°F

1st shoulder firing

T	B	S	t ↘	H	V ₁	V ₂
890°C 1634°F	403°C 757°F	6 min. 6 min.	60°C 108°F	1 min. 1 min.	450°C 842°F	889°C 1632°F

2nd shoulder firing

T	B	S	t ↘	H	V ₁	V ₂
890°C 1634°F	403°C 757°F	6 min. 6 min.	60°C 108°F	1 min. 1 min.	450°C 842°F	889°C 1632°F

1st dentin and incisal firing

T	B	S	t ↘	H	V ₁	V ₂
870°C 1598°F	403°C 757°F	4–9 min. 4–9 min.	60°C 108°F	1 min. 1 min.	450°C 842°F	869°C 1596°F

2nd dentin and incisal firing

T	B	S	t ↘	H	V ₁	V ₂
870°C 1598°F	403°C 757°F	4–9 min. 4–9 min.	60°C 108°F	1 min. 1 min.	450°C 842°F	869°C 1596°F



Stain and characterization firing

T	B	S	t ↘	H	V ₁	V ₂
830°C 1526°F	403°C 757°F	4 min. 4 min.	60°C 108°F	1–2 min. 1–2 min.	450°C 842°F	829°C 1524°F

Glaze firing without glazing material

T	B	S	t ↘	H	V ₁	V ₂
870°C 1598°F	403°C 757°F	4 min. 4 min.	60°C 108°F	0.5–1 min. 0.5–1 min.	450°C 842°F	869°C 1596°F

Glaze firing with glazing material

T	B	S	t ↘	H	V ₁	V ₂
830°C 1526°F	403°C 757°F	4 min. 4 min.	60°C 108°F	1–2 min. 1–2 min.	450°C 842°F	829°C 1524°F

Corrective firing with IPS d.SIGN Margin Add-on (1:1) (glaze firing without glazing material)

T	B	S	t ↘	H	V ₁	V ₂
870°C 1598°F	403°C 757°F	4 min. 4 min.	60°C 108°F	0.5–1 min. 0.5–1 min.	450°C 842°F	869°C 1596°F

Corrective firing with IPS d.SIGN Margin Add-on (alone) (glaze firing with glazing material)

T	B	S	t ↘	H	V ₁	V ₂
830°C 1526°F	403°C 757°F	4 min. 4 min.	60°C 108°F	1–2 min. 1–2 min.	450°C 842°F	829°C 1524°F

Corrective firing with IPS d.SIGN Add-on material (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.	450°C 842°F	809°C 1488°F

Corrective firing with IPS d.SIGN Add-on material (alone)

T	B	S	t ↘	H	V ₁	V ₂
750°C 1382°F	403°C 757°F	4 min. 4 min.	60°C 108°F	1 min. 1 min.	450°C 842°F	749°C 1380°F

i These firing parameters represent standard values applicable to the P80, P200, and PX1 porcelain furnaces from Ivoclar Vivadent. The temperatures indicated also apply to furnaces of older generations, such as the P20, 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 porcelain 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 adjustment 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 to take these varying firing conditions are taken into account when working with IPS d.SIGN.

The degree of firing can be determined by comparing the fired ceramic unit with the corresponding material shade guide.

Remember to calibrate your furnace regularly.