Firing parameters

IPS Style Ceram	Firing temperature T [°C / °F]	Stand-by temperature B [°C / °F]	Closing time S [min]	Heating rate t↗ [°C / °F]	Holding time H [min]	Vacuum on V_1 [°C / °F]	Vacuum off V_2 [°C / °F]
1st/2nd Powder Opaquer firing	870 / 1598	403 / 757	4:00	100 / 180	1:00	450 / 842	869 / 1596
1st/2nd Paste Opaquer firing	870 / 1598	403 / 757	6:00	100 / 180	2:00	450 / 842	869 / 1596
1st/2nd Margin firing	840 / 1544	403 / 757	6:00	60 / 108	1:30	450 / 842	839 / 1542
1st Dentin / Incisal / One / Gingiva firing	790 / 1454	403 / 757	6:00	60 / 108	1:00	450 / 842	789 / 1452
2nd Dentin / Incisal / One / Gingiva firing	780 / 1436	403 / 757	6:00	60 / 108	1:00	450 / 842	779 / 1434
Stains firing*	750 / 1382	403 / 757	6:00	60 / 108	1:00	450 / 842	749 / 1380
Glaze firing / Add-On with Glaze firing	750 / 1382	403 / 757	6:00	60 / 108	1:00	450 / 842	749 / 1380
Add-On after Glaze firing	690 / 1274	403 / 757	6:00	60 / 108	1:00	450 / 842	689 / 1272

* The Stains firing is used to fixate IPS Ivocolor Shades/Essences in place and is particularly recommended for comprehensive characterizations (e.g. single-layer technique).

IPS Style Ceram (veneering technique) Veneers fabricated on refractory dies	Firing temperature T [°C / °F]	Stand-by temperature B [°C / °F]	Closing time S [min]	Heating rate t↗ [°C / °F]	Holding time H [min]	Vacuum on V_1 [°C / °F]	Vacuum off V_2 [°C / °F]
Wash firing	810 / 1490	403 / 757	8:00	50 / 90	1:00	450 / 842	809 / 1488
Cervical firing	800 / 1472	403 / 757	8:00	50 / 90	1:00	450 / 842	799 / 1470
Dentin/Impulse firing	800 / 1472	403 / 757	8:00	50 / 90	1:00	450 / 842	799 / 1470
Incisal firing	800 / 1472	403 / 757	8:00	50 / 90	1:00	450 / 842	799 / 1470
Glaze firing with IPS Ivocolor	750 / 1382	403 / 757	8:00	50 / 90	1:00 – 1:30	450 / 842	749 / 1380

Please observe the regulatory Instructions for Use (www.ivoclar.com/eIFU).

- All the firing programs described in these Instructions for Use are run without active cooling. After the holding time, the furnace heater is switched off and furnace head cools down with a device-related cooling gradient with the help of the time-controlled opening of the furnace head. If long-term cooling is conducted, the closed furnace head cools down to 650°C / 1202°F after the heater is switched off, at which point the time-controlled opening of the furnace head provides the device-related cooling gradient.
- If additional Dentin / Incisal / One / Gingiva firings are required, they are conducted using the 2nd Dentin / Incisal / One / Gingiva firing program.
- For very large restorations, it is recommended to use a slightly longer predrying time (closing time S).
- If ceramic layers with a thickness of more than 1.5 mm are applied, long-term cooling can be favourable on base metal alloys and alloys with a high CTE value.

These firing parameters are guidance values. They are valid for the Programat furnaces from Ivoclar Vivadent.
If furnaces from other manufacturers are used, the firing parameters have to be adjusted accordingly, as the case may be.
Deviations may occur:
- Depending on the furnace generation
- In case of regional differences in the power supply or if several electrical devices are operated on the same circuit.