Annex 1

Digital light Processing (DLP) printer, operation software and parameter

Model (Picture)	Printer Manufacturer, Model	Light source	Pixel size x,y	Light intensity	Operation Software	Parameter data set*	Curing time	Slicing	Recommended orientation angle (degree)
	Aidite Cameo CPD-100	405 nm	±30 µm	4.3 mW/cm²	Aidite Dental	EZPRINT Crown Bridge	2.4 s	50 µm	0-90
	Asiga Max	385 nm	±62 µm	6.1 mW/cm²	Composer 1.2.11	Detax_Freeprint crown_5	2.15 s	50 µm	0-90
	Asiga Max 2	385 nm	±62 µm	7.0 mW/cm²	Composer 2.0.8	Detax_Freeprint crown_5	2.0 s	50 µm	0-90
	Asiga PRO 4K	385 nm	±56 µm	7.0 mW/cm²	Composer 1.2.11	Detax_Freeprint crown_5	2.0 s	50 µm	0-90
	Asiga Ultra	385 nm	±50 µm	6.6 mW/cm²	Composer 2.0.8	Detax_Freeprint crown_5	2.1 s	50 µm	0-90
	Formlabs Form 4B	405 nm	±50 µm	7.0 mW/cm²	PreForm V3.44.0.471	detax Freeprint crown V01	1.5 s	50 µm	0-90
	Heygears UltraCraft A2D HD	385 nm	±42.5 µm	1.75 mW/cm²	Heygears Cloud V4.3.7.6	Detax Crown	3.0 s	50 µm	0-90
	Ivoclar PrograPrint PR5	388 nm	±25 µm	16 mW/cm²	PrograPrint CAM 1.1.10.1	Detax FREEPRINT crown	0.9 s	50 µm	0-90
	LuxCreo Fast-Print.io	385 nm	±40 µm	6.0 mW/cm²	LuxFlow v3.1.0.301229	DETAX freeprint-crown	2.15 s	50 µm	0-90
	Microlay Versus	385 nm	±65 µm	4.3 mW/cm²	Microform 1.0.3.7	DETAX Freeprint Crown 385 50 micron v5.6	1.99 s	50 µm	0-90
	Rapidshape ONE	385 nm	±34 µm	3.5 mW/cm²	Print Studio 1.2.	DETAX Freeprint-crown	1.8 s	50 µm	0-90
	Rapidshape D10+/D20+/ D30+/D40+	385 nm	±34 µm	2.0 mW/cm²	Netfabb 2020	DETAX freeprint-crown	3.6 s	50 µm	0-90
	Rapidshape PRO20 (Dental)/ PRO30 (Dental)	385 nm	±34 µm	2.0 mW/cm²	Netfabb 2020	DETAX Freeprint-crown	3.6 s	50 µm	0-90
	Rayshape Edge E2	405 nm	±34.4 µm	5.0 mW/cm²	ShapePanel	DETAX FREEPRINT crown	1.8 s	50 µm	0-90
	Rayshape Edge Mini	405 nm	±35 µm	5.0 mW/cm²	ShapeWare 2.0 V0.5.5	DETAX FREEPRINT crown	2.5 s	50 µm	0-90
	Shining 3D AccuFab CEL	405 nm	±35 µm	4.0 mW/cm²	Accu Ware V3.2.1.109	DETAX FREEPRINT crown -0.05	2.0 s	50 µm	0-90
	Shining 3D AccuFab L4D	405 nm	±50 µm	2.0 mW/cm²	Accu Ware V3.2.1.108	DETAX FREEPRINT crown -0.05	3.7 s	50 µm	0-90
	W2P SolFlex 250 UHD	385 nm	±50 µm	5.0 mW/cm²	SolFab	Detax FREEPRINT crown 385	2.4 s	50 µm	0-90

*The set of parameters includes all relevant material- and printer specific information

Cleaning Equipment

Cleaning unit Manufacturer, Model	Cleaning process
Ivoclar PrograPrint Clean	Clean the parts with isopropyl alcohol (purity ≥ 98 %) for 3 minutes. Then thoroughly clean the openings, cavities and gap areas with compressed air.
	The main cleaning is performed in a seperate vessel with fresh isopropyl alcohol (purity ≥ 98 %) for 2 minutes.
	Prior to post-exposure, check the openings, cavities and gap areas for residues. Then blow off with compressed air.
Rapidshape RS wash	Use the following settings: DETAX Freeprint-crown
	Prior to post-exposure, check the openings, cavities and gap areas for residues.
	Then blow off with compressed air.
Ultrasonic bath Bandelin Sonorex	Clean the parts with isopropyl alcohol (purity ≥ 98 %) for 1 minute. Then thoroughly clean the openings, cavities and gap areas with compressed air.
	The main cleaning is performed in a seperate vessel with fresh isopropyl alcohol (purity ≥ 98 %) for 1 minute.
	Prior to post-exposure, check the openings, cavities and gap areas for residues. Then blow off with compressed air.

Light curing Equipment

Light Curing unit Manufacturer, Model	Curing process
Asiga Cure	Use the following settings: Detax_Freeprint crown_6
Dreve PCU LED N2	Intensity: 40%, 6:40 min, vacuum, nitrogen
Heygears PCU 3.0	Use the following settings: Detax Crown UV
Ivoclar PrograPrint Cure	Post curing A: Wavelength = 405 nm; Intensity = 45 %; Duration = 5 min Post curing B: Wavelength = 460 nm; Intensity = 45 %; Duration = 5 min
LuxCreo ILCD	Program „PO2"
NK Optik Otoflash G171	2 × 2000 flashes under inert gas, turn around components after 2000 flashes
NK Optik Otoflash 250/500	4000 flashes under inert gas @15 Hz
Rapidshape RS cure	Use the following settings: DETAX Freeprint-crown
Rapidshape RS cure XL	Use the following settings: DETAX Freeprint-crown