















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)
	Asiga Max	385 nm	±62 µm	7.0 mW/cm ²	Composer 1.2.11	Detax_Freeprint splintmaster taff_5 Detax_Freeprint splintmaster flex_5	3.5 s	100 µm	0-90
	Asiga Max 2	385 nm	±62 µm	7.0 mW/cm ²	Composer 2.0.8	Detax_Freeprint splintmaster taff_5 Detax_Freeprint splintmaster flex_5	3.5 s	100 µm	0-90
	Asiga PRO 4K	385 nm	±56 µm	7.0 mW/cm ²	Composer 1.2.11	Detax_Freeprint splintmaster taff_5 Detax_Freeprint splintmaster flex_5	3.5 s	100 µm	0-90
	Asiga Ultra	385 nm	±50 µm	6.6 mW/cm ²	Composer 2.0.8	Detax_Freeprint splintmaster taff_5 Detax_Freeprint splintmaster flex_5	3.6 s	100 µm	0-90
	Formlabs Form 4B	405 nm	±50 µm	7.0 mW/cm ²	PreForm V3.48.0.523 PreForm V3.44.0.471	detax Freeprint splintmaster taff V01 detax Freeprint splintmaster flex V01	5.5 s 6.5 s	100 µm	20-40
	Heygears Ultracraft A2D	385 nm	±37.5 µm	2.1 mW/cm ²	HEYGEARS Cloud V4.3.7.6	Detax Splintmaster Taff UV Detax Splintmaster Flex UV	4.8 s	100 µm	0-90
	Heygears Ultracraft A2D HD	385 nm	±42.5 µm	14 mW/cm ²	HEYGEARS Cloud V4.3.7.6	Detax Splintmaster Taff UV	8.0 s	100 µm	0-90
	Heygears Ultracraft A3D	385 nm	±37.5 µm	2.1 mW/cm ²	HEYGEARS Cloud V4.3.7.6	Detax Splintmaster Taff UV	4.5 s	100 µm	0-90
	Ivoclar PrograPrint PR5	388 nm	±25 µm	16 mW/cm ²	PrograPrint CAM 1.1.10.1	Detax_Freeprint splintmaster taff Detax_Freeprint splintmaster flex	2.0 s	100 µm	0-90
	Miicraft Alpha	385 nm	±68 µm	6.0 mW/cm ²	Utility 6.4.4	Detax_Freeprint splintmaster taff Detax_Freeprint splintmaster flex	4.4 s	100 µm	0-90
	Rapidshape ONE	385 nm	±34 µm	3.5 mW/cm ²	Print Studio 1.2.	DETAX freeprint- splintmaster-taff DETAX freeprint- splintmaster-flex	3.5 s	100 µm	0-90
	Rapidshape D10+/D20+/D30+/D40+	385 nm	±34 µm	2.0 mW/cm ²	Netfabb 2020	DETAX freeprint- splintmaster-taff DETAX freeprint- splintmaster-flex	5.0 s	100 µm	0-90
	Rapidshape D50+	385 nm	±34 µm	2.0 mW/cm ²	Netfabb 2020	DETAX freeprint- splintmaster-taff	5.0 s	100 µm	0-90
	Rapidshape PRO20 (Dental)/PRO30 (Dental)	385 nm	±34 µm	2.0 mW/cm ²	Netfabb 2020	DETAX freeprint- splintmaster-taff DETAX freeprint- splintmaster-flex	5.0 s	100 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 \geq 98 %) for 3 minutes. Then thoroughly clean the openings, cavities and gap areas with compressed air. The main cleaning is performed in a separate vessel with fresh isopropyl alcohol (purity \geq 98 %) for 3 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-splintmaster-taff; DETAX Freeprint-splintmaster-flex 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 \geq 98 %) for 3 minutes. Then thoroughly clean the openings, cavities and gap areas with compressed air. The main cleaning is performed in a separate vessel with fresh isopropyl alcohol (purity \geq 98 %) for 3 minutes. 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
Dreve PCU LED N2	Intensity: 80%, 06:40 min, vacuum, nitrogen (splintmaster taff only)
Ivoclar PrograPrint Cure	Post curing A: Wavelength = 405 nm; Intensity = 100 %; Duration = 90 s Post curing B: n/a
NK Optik Otoflash G171	2 \times 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-splintmaster-taff; DETAX Freeprint-splintmaster-flex
Rapidshape RS cure XL	Use the following settings: DETAX Freeprint-splintmaster-taff; DETAX Freeprint-splintmaster-flex

