

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/cm²	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/cm²	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/cm²	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/cm²	Composer 2.0.8	Detax_Freeprint splintmaster taff_5 Detax_Freeprint splintmaster flex_5	3.6 s	100 µm	0-90
	Ivoclar PrograPrint PR5	385 nm	±25 µm	16 mW/cm²	PrograPrint CAM 1.1.10.1	Detax_Freeprint splintmaster taff_5 Detax_Freeprint splintmaster flex_5	2.0 s	100 µm	0-90
	Miicraft Alpha	385 nm	±68 µm	6.0 mW/cm²	Utility 6.4.4	Detax_Freeprint splintmaster taff_5 Detax_Freeprint splintmaster flex_5	4.4 s	100 µm	0-90
	Rapidshape D10+/D20+/ D30+/D40+	385 nm	±34 µm	2.0 mW/cm²	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 ≥ 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 ≥ 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 ≥ 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 ≥ 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
Ivoclar PrograPrint Cure	Post curing A: Wavelength = 405 nm; Intensity = 100 %; Duration = 90 s Post curing B: n/a
NK Optik Otoflash G171	2 x 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