LF111
355 nm SLA resin

Technical Data Sheet

General Information

CPS LF111 is designed to reliably provide accurate and clear models of all sizes and shapes. CPS LF111 has a high modulus and strength for rigid part production. CPS LF111 is a hybrid resin that works well for printing parts of all sizes from small to large with excellent resolution. It is designed for open and legacy platforms utilizing 355 nm light sources.

Product Data

		Method
Viscosity (cps @25 °C)	120	Brookfield SP #31

Bulk Properties		
Tensile Modulus (mPa)	2600	
Tensile Strength (mPa)	64	
Elongation (%)	3.0	ASTM D 638-14
Toughness (J)	1.3	
Flexural Modulus (mPa)	3300	
Flexural Strength (mPa)	80	ISO 178
Impact Resistance (J/m)	45	ASTM D256

Post Cure Procedure

Post-cure with UVA/UVV Metal Halide bulb with 10,000 mJ/cm^2

Storage and Handling

CPS LF111 stable for up to 1 year at ambient conditions.

This product is light sensitive and should not be exposed to daylight, UV light and artificial lighting during storage. Exposure to daylight, UV light and artificial lighting should be kept to a minimum during handling.

Lightyear Build Station Recommended Print Conditions

$E_c = 5$ mJ/cm^2 $D_p = 4$ mils

Recoat software parameters	Input
Style type	Fast
Blade gap %	250
# of sweeps	1
Velocity (in/sec)	N/A
Z wait (sec)	0
Pre-dip delay (sec)	0
Z dip velocity	Normal
Z dip distance (inches)	0.2
Support Z wait (sec)	0
Support pre-dip delay (sec)	0
Support Z dip velocity	Normal
Support Z dip distance (inches)	0.25
Separator height	0.12
Brace interval	1
Brace push up	0.02

Build style software parameters	Input
Critical exposure (mJ/cm^2)	5
Penetration depth (mils)	4
Layer thickness	0.004
Exact, Quickcast, Fast, NXLT?	Fast
Post hatch delay (sec)	10
Stagger weave?	Yes
Alternate sequencing?	Yes
# of layer hatches	2
layer hatch angle	0,90
layer hatch overcure	0,0
layer hatch spacing	0.004, 0.004
# of up fills	2
up fill angle	0,90
up fill cure depth	0.009
up fill spacing	0.004
# of down fills	2
down fill angle	0,90
down fill cure depth	0.009
down fill spacing	0.004,0.004
Layer border	0
Layer border prime	0.002
Down border	0
Up border	0
Additional borders	3
Multiple border offset	0.004
Minimum width for fills	0.004
LWC	No
Auto calculate Z correction	Yes
SFP Comp	No
High resolution spatial tolerance	No
Z smoothing	No
Smart best surface finish	No

Support style parameters	Recommendation
Support border	0.008
Support interface up border	0.008
Support interface down border	0.008
Strand thickness	0.02
Strand spacing	0.06
Top interface intersect	0.02
Top interface exposed height	0.024
Bottom interface intersect	0.02
Bottom interface exposed	0.024
Projection offset height	0.2
Projection thickness	0.02
Triangular offset width	0.2
Interior perimeter	Yes
Braces	No
Gussets	No
Projected edges	Yes
Line spacing	0.2
Supported cutaway	0.025
Unsupported inset	0.005
Double edge distance	0.025
Support bottom	0
Flags	No
Gusset Sierras	Yes
Mixed mode	Yes
Gusset angle	30
Minimum gusset length	0
Maximum gusset length	1
Maximum pole height	2
Separator height	0.12
Brace interval	1
Brace push up	0.02