LF053
355 nm SLA Resin

Technical Data Sheet

General Information

CPS LF053 is designed to reliably provide accurate and clear models. CPS LF053 has good modulus and flexibility for part production. CPS LF053 is an all acrylic resin that prints with excellent resolution. It is designed for open and legacy platforms utilizing 355 nm light sources.

Product Data

		Method
Viscosity (cps @25 °C)	560	Brookfield SP #31
	Bulk Properties	
Tensile Modulus (mPa)	900	ASTM D 638-14
Tensile Strength (mPa)	50	
Elongation (%)	10	
Toughness (J)	3.1	
Flexural Modulus (mPa)	2000	ISO 178
Flexural Strength (mPa)	80	
Impact Resistance (J/m)	95	ASTM D256

Post Cure Procedure

Post-cure with UVA/UVV Metal Halide bulb with 13 J/cm2 post-cure

Storage and Handling

CPS LF053 is stable for >6 months 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= 12 mJ/cm^2 D_p= 4.9 mils

Recoat Software Parameters	Input
Style type	Exact
Blade gap %	250
# of sweeps	1
Velocity (in/sec)	1
Z wait (sec)	0
Pre-dip delay (sec)	0
Z dip velocity	Normal
Z dip distance (inches)	0.25
Support Z wait (sec)	0
Support pre-dip delay (sec)	0
Support Z dip velocity	Normal
Support Z dip distance (inches)	0.25
Support Style Parameters	**Recommendation**
Support border	0.011
Support interface up border	0.011
Support interface down border	0.011
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
Build Style Software Parameters	**Input**
Critical exposure (mJ/cm^2)	12
Penetration depth (mils)	4.9
Layer thickness	0.004
Exact, Quickcast, Fast, NXLT?	Exact
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	0.004
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