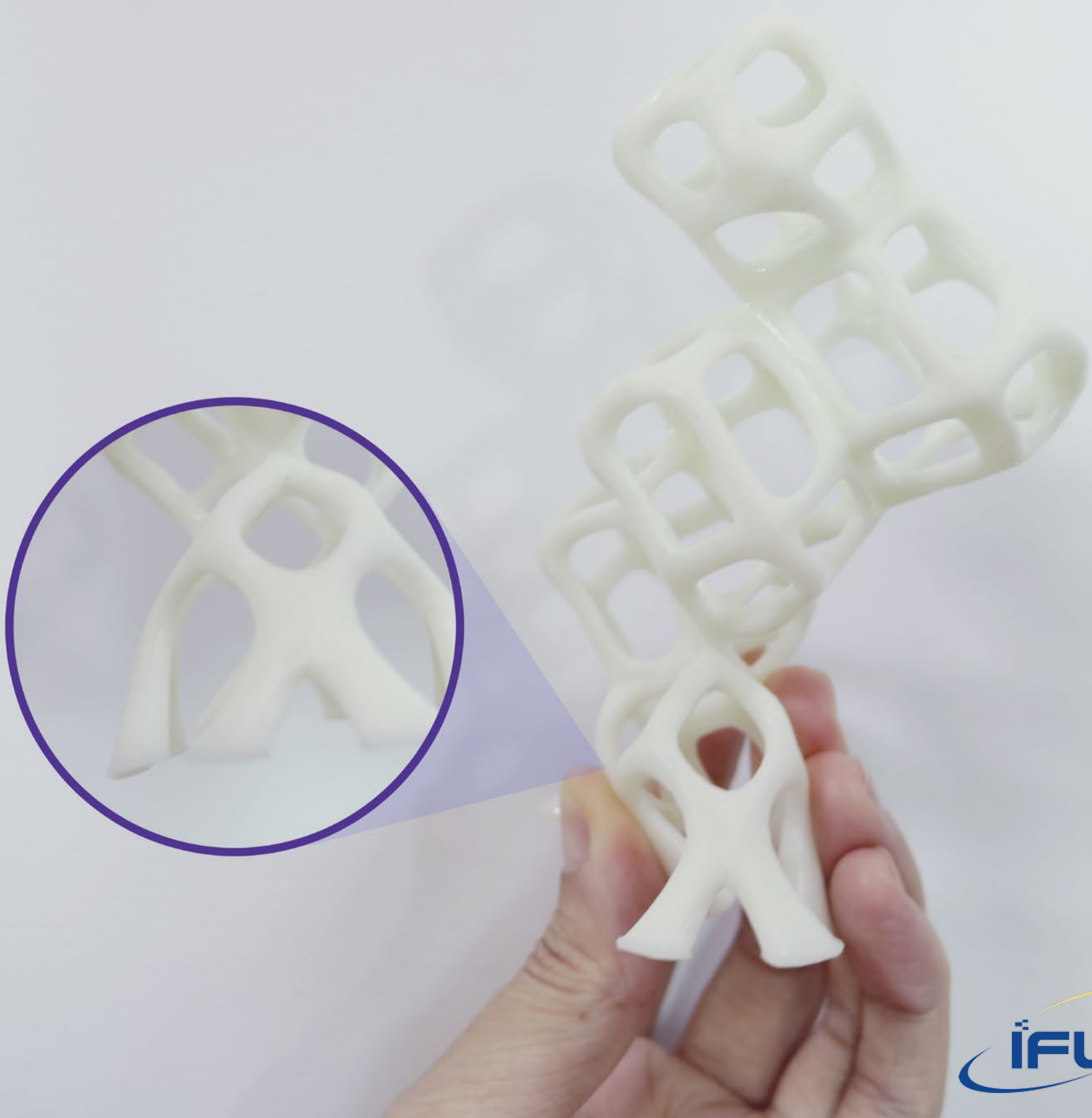


Toughness Resin

iF3121

Suitable for industrial tough parts

High toughness resins balance hardness and toughness ,a good choose for powerful functional parts and assemblies!



Updated date 2021.04.20

iF3121 Resin Material Properties Data

project	content	Data value	testing method
Physical and chemical properties (before curing)	colour	black/white/gray	
	viscosity	340-360mPa·s(@25°C)	ASTM D1084
	density	1.2±0.05g/cm ³	ASM D1875
Physical and chemical properties (after curing)	critical exposure	12mj/cm ³	
	shrinkage	≤1%	
	hardness(D)	55-60D	ASTM D2240
	elongation at break	40-50%	
	tensile strength	35~40MPa	
	bending strength	35-40MPa	
	high impact strength	460kj/m ²	
	Temperature resistance	95°C	

Remark:

1. The resin's raw materials import from international chemical giants, just to ensure the resin's quality and performance.
2. High toughness, but not soft, high impact resistance, and has a certain temperature resistance.
3. Linear shrinkage and volume reduction, high surface accuracy, good dimensional stability.
4. Low calorific value when printing, not easy to damage the release film.
5. Matte color, more in line with the industrial printing parts of the appearance needs.
6. Low smell, less skin irritation

Light source intensity comparison

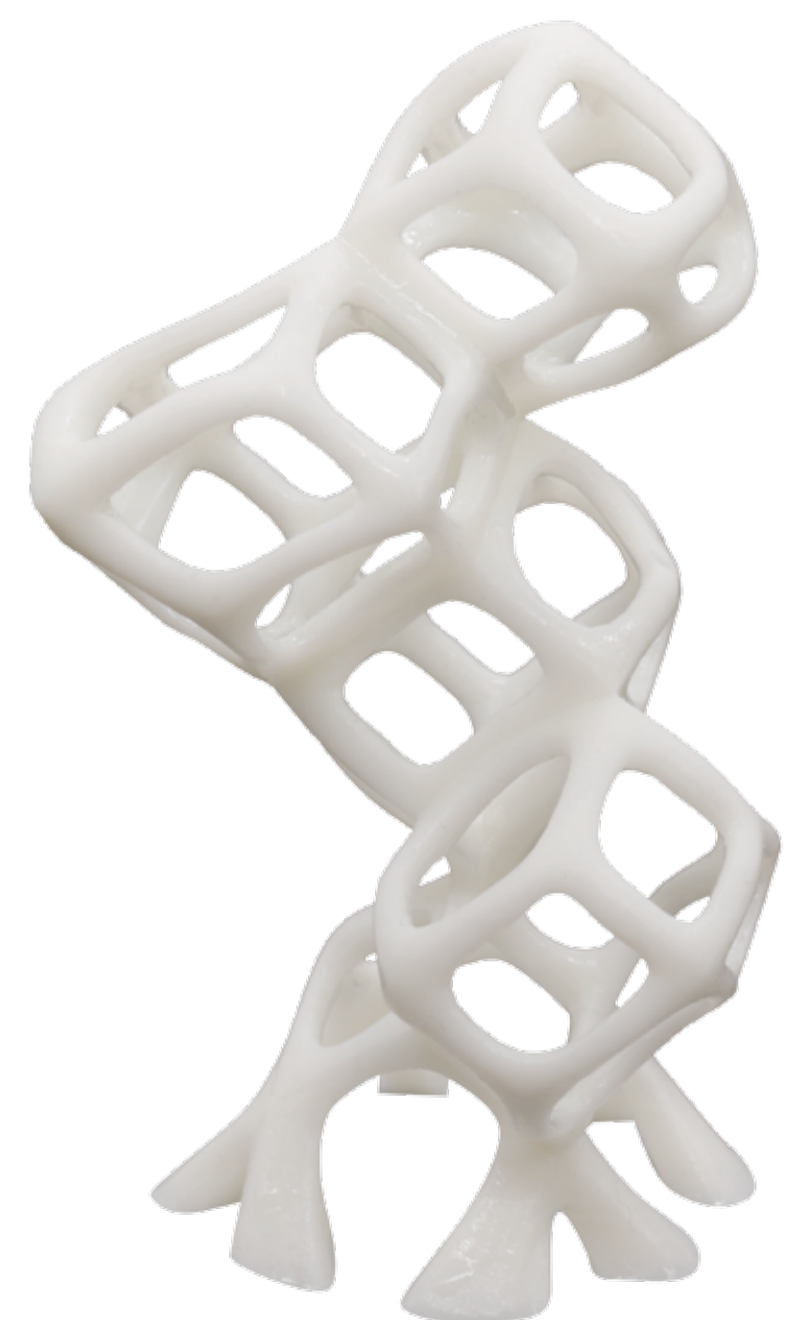
Machine type	DLP	L4K Pro	CREALITY	ANYCUBIC (2k)
Relative light intensity	5	1	0.6	0.4

Print parameter recommendation form

Material model	Material Colour	Recommended thickness	Light source wavelength
iF3121	white	0.05mm	405nm

machine	Bottom exposure	Normal layer exposure	Top support diameter	Support diameter
LCD(4K Mono)	60s	4 (3~5)s	0.6~0.8mm	0.8~1.2mm
Anycubic mono X	35s	2.5 (2~3)s	0.6~0.8mm	0.8~1.2mm
DLP	5s	2.5(2~4)s	0.6~0.8mm	0.8~1.2mm

Support density	Support angle	post-curing time (30W power)
50%	45%	3 min



Print parameter recommendation form

Material model	Material Colour	Recommended thickness	Light source wavelength
iF3121	Gray	0.05mm	405nm

machine	Bottom exposure	Normal layer exposure	Top support diameter	Support diameter
LCD(4K Mono)	60s	10 (8~12)s	0.6~0.8mm	0.8~1.2mm
Anycubic mono X	35s	8 (8-10)s	0.6~0.8mm	0.8~1.2mm
DLP	5s	5(5~7)s	0.6~0.8mm	0.8~1.2mm

Support density	Support angle	post-curing time (30W power)
50%	45%	3 min



Print parameter recommendation form

Material model	Material Colour	Recommended thickness	Light source wavelength
iF3121	Black	0.05mm	405nm

machine	Bottom exposure	Normal layer exposure	Top support diameter	Support diameter
LCD(4K Mono)	60s	12 (10~15)s	0.6~0.8mm	0.8~1.2mm
Anycubic mono X	35s	6 (5-6)s	0.6~0.8mm	0.8~1.2mm
DLP	5s	5(5~7)s	0.6~0.8mm	0.8~1.2mm

Support density	Support angle	post-curing time (30W power)
50%	45%	5 min

