



Stereolithography uses an ultraviolet laser to cure liquid epoxy resin into a solid - working in very, very thin layers (as small as 0.05mm) that are cross sections of CAD data.

The resin is light sensitive, so as the laser passes over the liquid it creates a solid surface. Once a pass is complete more liquid is added until the full height specifications are achieved. The completed part is then removed from the liquid and excess resin is cleaned.

Parts made using SLA are incredibly accurate with a smooth finish. The stereolithography process is very versatile and cost effective, meaning it is ideal for rapid prototyping.

Precision 3D Printing have New Zealand's only commercially-available SLA machines.

APPLICATIONS:

- DISPLAY MODELS
- PATTERNS
- MARKETING SAMPLES
- HOUSINGS
- FUNCTIONAL PARTS
- PACKAGING CONTAINERS

PROS:

- FAST TURNAROUND
- GREAT DETAIL
- SMOOTH PLASTIC-LIKE FINISH
- NON-POROUS

CONS:

- LOW CREEP RESISTANCE
- NOT UV STABILISED



SLA CAPABILITY



SLA MACHINE SPECIFICATIONS:

DATA FORMAT:

Binary STL (other formats may be converted)

MAX. BUILD SIZE:

250mm(X) x 250mm(Y) x 245mm(Z)

Ask about other sizes

LAYER STEP SIZE:

Course 0.15mm

Standard: 0.10mm

Hi Res 0.05mm

MINIMUM FEATURE SIZE:

0.5mm in Course & Standard Mode

0.3mm in Hi Res Mode

MATERIALS AVAILABLE:

DSM Somos 9120 - Polypro, LDPE

DSM Somos Watershed 11122XC - PC, trans-ABC

DSM Somos 12120 - Nylon 6:6

DSM Somos NeXt (white) - Nylon, Acetal