



Resolution and Build

HIGH RESOLUTION, LARGE BED PRINTING

Print volume to 800 x 800 x 600 mm.
Extremely accurate printer with a layer resolution between 50 to 200 µm.
Excellent side wall quality.

GOOD RESOLUTION, MID-SIZE BED PRINTING

Print volume to 300 x 330 x 457 mm.
Layer resolution at 0.15mm.
SLS layer bonding is exceptionally strong, resulting in parts with virtually isotropic mechanical properties.

Process

VAT POLYMERISATION = GREAT DETAILING

Uses light-curable thermoset resins. Resultant structure is solid, homogeneous, and with a super-smooth A-surface. Liquid resin enables design fluidity which in turn helps to achieve complex features and intricate detailing. **N.B. Requires support structures.**

POWDER BED FUSION = TOUGH COMPOSITES

Uses nylon-based powders sintered together with a laser. Nylon and nylon composites result in robust, functional parts with higher impact strength than those created with SLA. Detailing cannot be as refined as SLA parts. **N.B. Parts DO NOT require support structures.**

Surface quality and finishing

EXCELLENT SURFACE QUALITY

Provides a smooth A surface finish with very little layering. Parts are comparable in look and feel to injection moulded parts. Parts need to be washed and cured. Support structures and pips need to be removed. Parts cannot be dyed but can be blasted, primed and painted.

REQUIRES EXTRA FINISHING

Overall surface quality is influenced by material properties and build orientation. The resultant print surface can be grainy - particularly for composite materials. Parts therefore need to be bead blasted and polished for a smoother finish. Can be dyed or painted.

Materials

SIMILAR TO TRADITIONAL THERMOPLASTICS

SOMOS® EvoLVE 128 is a white, strong, durable plastic ideal for intricately detailed models; **SOMOS® WaterShed XC11122** is a clear, hard plastic ideal for fluid flow analysis and surgical planning. **SOMOS® Taurus** offers thermal and mechanical performance.

FUNCTIONAL NYLONS AND COMPOSITES

PA 650 Nylon (PA 12 sintering material) produces tough, white, biocompatible parts with good heat resistance. **PA 615 - GF Nylon** (PA 12 glass-filled) comprises 50% glass spheres, delivering on toughness, temperature and chemical resistance. Not biocompatible until processed.

Applications

PATTERN MASTERS, PROTOTYPES & MODELS

Very low volumes of parts. E.g. Medical anatomical models and surgical planning, device prototypes. Automotive jigs and fixtures, industrial and aerospace part prototypes with snap fit designs. Props and exhibition models. Casting cores for silicone casting.

LOW VOLUMES OF FUNCTIONAL PARTS

Perfect for low volumes of durable, mass customised parts, e.g. under bonnet and industrial applications. Snap fit and living hinge designs. Aerospace parts, ducting and electronics housing. Medical device exploration prototypes. Jigs, fixtures and accurate tooling.

**What do you want to
make today?**



Expertise across industries