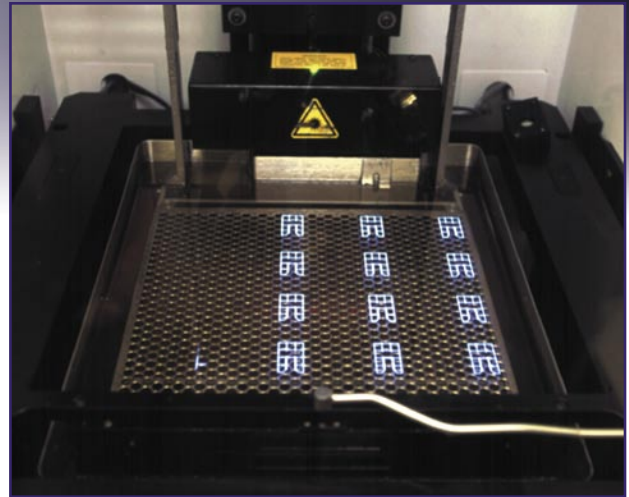


## Prototypes in Hours or Less...

QuickPrototyping, a service of Trace Laboratories, provides rapid prototyping services to customers using an in-house Stereolithography (SLA) system. SLA is a rapid-prototyping process which produces a physical three-dimensional part, a conceptual model, or a master pattern. Using a 3D Systems Viper si2 stereolithography machine or an FDM machine to produce rapid prototype parts, customers can hold a physical, plastic, scaled model of their design, usually within hours.

The customer can choose between *standard* resolution mode, for the best balance of build speed and part resolution, and *high* resolution mode for ultra-detailed small parts and features. The SLA machine uses a computer-controlled laser to cure a photosensitive resin, layer by layer, to create the 3D part. The time frame for prototype creation varies based on product sizing – with a maximum platform size of 10" x 10" x 10". With smaller designs, multiple pieces can be produced simultaneously.



This material is suitable for use in a wide range of automotive, engineering, and electronics applications.



## Material

The material we use is designed to create parts that mimic production level components. SLA technology allows customers to see their components in applications ranging from snap-fit testing to the creation of multi-component assemblies. The material exhibits mechanical properties similar to those offered by popular thermoplastics, such as polypropylene.

Consequently, prototypes can be tested rigorously while maintaining the integrity of the part geometry.

## Finishing

The standard SLA part finish includes support removal, sanding surfaces, and glass bead blasting. The natural SLA part finish is an opaque color, but a clear finish is also available. SLA parts can be painted or they can be dyed in an array of colors without changing the overall size of the part.

## Rapid Prototyping Benefits

- Crisp, highly detailed, and accurate pieces
- Speed of delivery (usually 2-3 days)
- Tolerances within .004"/inch
- Reduces time to market
- Applies to almost any industry
- Greatly enhances the visualization of a product
- Provides patterns for castings and secondary processes
- Produces robust prototypes that mimic production components
- Enhances communication between project team members
- Provides mechanically functional samples for comparison testing

Prototypes in Hours or Less...



### **Design Source Material**

In order to create the prototype part, QuickPrototyping needs only an STL, STP, or AutoCAD format file. If a 3D CAD platform is not available, QuickPrototyping can provide the necessary tools and personnel to create the needed files and models. A quotation for this service will be sent promptly after receiving specific customer information (please contact QuickPrototyping via the information provided on this page – or use QuickPrototyping’s online quote request form at [www.quickprototyping.com](http://www.quickprototyping.com)).

Stereolithography is a cutting edge technology. It can be applied to almost any industry, and it can provide a useful way to facilitate the design process.

QuickPrototyping is a service of Trace Laboratories. Trace offers a wide range of independent, internationally accredited testing services to a variety of industries.

- ✓ Chemical Analysis
- ✓ Electrical/Electronic
- ✓ EMC
- ✓ Environmental
- ✓ Failure/Contamination
- ✓ HALT/HASS
- ✓ Lead Free/Tin Whisker
- ✓ Mechanical
- ✓ Printed Circuit Board
- ✓ Reliability/Durability
- ✓ SLA and Rapid Prototyping
- ✓ Thermal Analysis
- ✓ Underwriters Laboratories
- ✓ Vibration/Shock
- ✓ Water Testing
- ✓ X-Ray Services



Testing is performed in strict accordance with the standards and customer-specific requests. The lab is also available on a per-day basis for preliminary testing and troubleshooting.

Trace is an A2LA Accredited Laboratory.

*For more information or for a quote, contact:*

**QuickPrototyping, a Service of Trace Laboratories**

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**[www.quickprototyping.com](http://www.quickprototyping.com)**