User's Guide and Datasheet
SR3000™

RAYZIST
Photomask, Inc. ®

Introduction

The self-stick **SR3000™** photoresist film allows you to ransfer your artwork into high detailed stencils for sandblasting on virtually any surface. You can use our photoresist stencils for all brittle materials such as glass, stone, metal, wood and much more.
SR3000™ photoresist film satisfies all needs for a self-stick film without the problems "self-adhesive" brands can bring. SR3000™ renders unmatched detail for half-tone imaging and ultra high resolution images. SR3000™ saves time and money by enabling you to produce a superior product with less hassle

The **SR3000™** is available in:

- 3MIL for high detailed sandblastings
- 4MII for moderately detailed artwork
- 5MIL for bolder lettering and artwork. Moderate for stage carving on glass
- 9MIL for deep angraving and mostly used for bolder lettering and stage carving on granite

Requirements

SR3000™ can be processed easily with a UV light source, film print and pressurized washout unit, such as a our Hand Washer or automatic washout unit. A Plastic Burnisher is necessary to bind the processed photomask to the substrate surface and remove the photomask's clear carrier. We can strongly recommend our Wire Wheel Brush; this hand-held tool releases air trapped between the substrate and the photomask.

Room Lighting

You do not need a darkroom or yellow lighting to use SR3000. The film can be safely handled in white fluorescent lighting for approximately ten minutes. Avoid any room or area that has direct or indirect UV light such open windows or doors. Sunlight will expose the film in a matter of seconds.
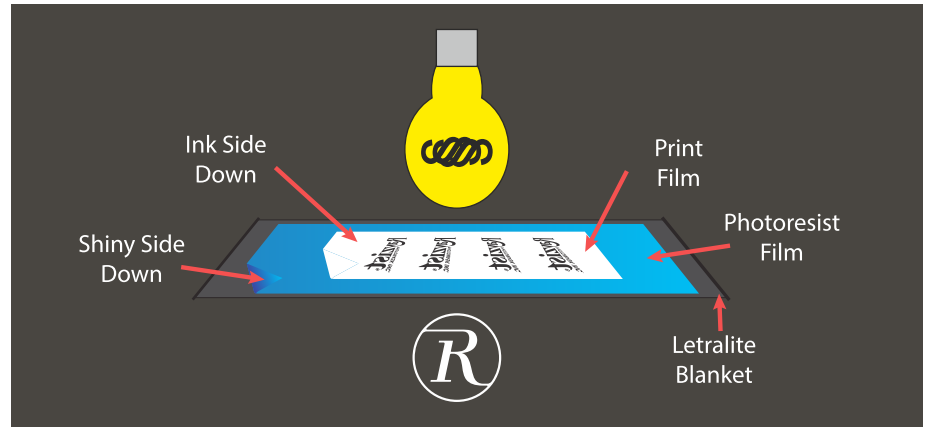
Shelf life

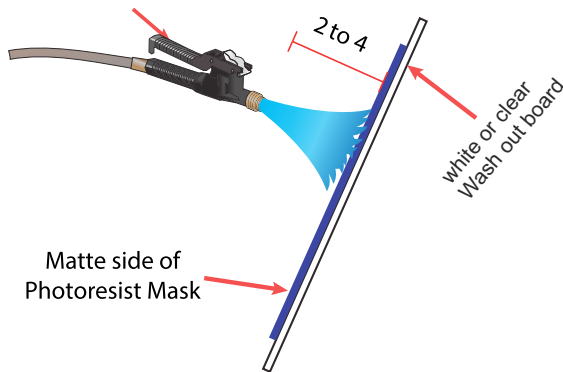Conservatively, 14 months at room temperature.

Image Transfer
Work under florescent lights for 1-3 minutes or no time limit under UV safe yellow or red lights. For optimum results film should be handled in safe lighting conditions.

- Placing SR3000 - The dull side will face up
- Place the artwork with the printed side against the dull side of the SR3000
- A vacuum frame or compression frame should be used to ensure firm contact between the artwork and the film during exposure.

Ink Side Down

Shiny Side Down

Print Film

Photoresist Film

Letralite Blanket

Wash out process

2 to 4

white or clear Wash out board

Matte side of Photoresist Mask

Position the exposed SR3000 in an upright vertical position with the emulsion side (matte / dull) facing outward. Use a clip for a clear board or a magnet for a white metal board to attach the film. Avoid any backlight or direct sunlight.
The water temperature should be between 15-40°C.

Please use a flat spray spray nozzle. Do not focus on one particular area to ensure an even wash.

Wash until the image becomes clear. The washing should be done in max. 90 sec. After 90 seconds the artwork could be damaged by over washing. After washing the dull side becomes very sticky, so please pay attention not to touch any surface with the mask.

Drying
- Remove excess water from mask to accelerate drying times.
- Dry the photomask 20-40 minutes at room temperate. The photomask should be uniform in color. High humidity will extend the drying time. With our film dryer drying will take 10 minutes at 50°C.
- SR3000 can be laid flat (carrier / glossy side down), or hung to dry.
When storing processed SR3000 for later use, apply it on cover+release paper.

Applying the photomask
SR3000 is repositionable. Apply the dull / sticky side of the photomask to the cleaned substrate and fix it with a plastic burnisher or rubber roller. Remove any air between the photomask and the substrates to avoid blow offs.

Sandblasting
The grit size of the abrasive should fit to the thickness of the photoresist you are using, so we can recommend the following:
220 mesh for 3MIL materials
180 mesh for 4MIL materials
150 mesh for 5MIL materials

Removing the photomask
You can peel the film off manually or with a high pressure washer.
If the items are small enough you can also take warmed water to let the sandblasted items soak for a while, so the film comes off on it's own.