

# SM 1000 STENCIL FILM

## OVERVIEW

SM 1000 is a red presensitized stencil film especially designed for the printed circuit manufacturer. While the product need not be limited to this application, its excellent adhesion to coarse polyester fabric, fine resolution, and sharp definition make it the ideal choice for this industry.

## CHARACTERISTICS

- 2 mil backing sheet
- Red in color
- Hybrid gelatin with double the durability of conventional films
- High resolution on polyester mesh
- Adhesion is improved with SAATI Direct Prep 3

## FEATURES/BENEFITS

- SM1000 is the preferred film for metal parts and signs

## MESH PREPARATION

As with most stencil systems, we recommend the use of SaatiChem™ Direct-Prep 1 on new polyester mesh. SaatiChem Direct-Prep 2 is also recommended. The use of a soft bristle brush is the preferred method. Succeeding stencils require only the use of Direct-Prep 2. Stainless steel mesh requires only a degreaser for preparation. Flush mesh with clean water and leave wet in preparation for mounting stencil.



## EXPOSURE

Exposure may be achieved in the same manner as all gelatin films. The film must be exposed through the polyester support. These films have a very wide exposure latitude. Small adjustments can be made after initial tests. Use the following approximate times if you have no idea where to start. Use of an exposure guide is recommended to determine exact exposure. Follow instructions included with the guide.

## EXPOSURE TIMES

Exposure Times	
Lamp	Distance
Mercury Vapor 2K	36"
Mercury Vapor 3K	48"
Mercury Vapor 5K	48"
Metal Halide 2K	36"
Metal Halide 5K	48"

## DEVELOPING

Stencil Films can be developed with SaatiPrint powdered developer. Follow directions on the container. Hydrogen Peroxide may also be used. Mix 20 volume Hydrogen Peroxide 1-part to 4-parts water. When using other strengths, mix to produce a 1.2% working solution. Developer temperature should be 65-75°F. Develop for one minute.

## WASHOUT

Washout temperature should be 105-115°F. Use a fine fan spray of medium pressure. Wash evenly over the whole image until clear. Then continue washing the stencil half the length of time it took to clear. This will ensure the image is fully open.

## CHILL

Reduce water temperature to 65°F. Chill the stencil for about 20 seconds. Chilling for too long can reduce the adhesion to polyester mesh.

## MOUNTING THE STENCIL

The stencil can be affixed to the mesh using two different methods. The stencil can be placed either on the print side of the wet mesh in the washout sink; or it can be placed on a flat surface which allows the print side of the wet mesh to be evenly applied to the stencil surface. For either method, the mounting surface must allow intimate contact of the film to the mesh. Place a single sheet of clean newsprint between the mounting table and stencil; place another sheet of clean newsprint on the opposite side of the mesh. Use clean flat newsprint, not newspaper. Blot the stencil three to four times until the stencil color appears on the newsprint. A soft rubber roller is preferred to roll the stencil into the mesh. Carefully lift the screen from the mounting table to avoid disturbing the bond of the stencil to the mesh.

## DRYING

Fan dry the stencil. Room temperature air is recommended, but warm air to 90°F. may be used if controlled properly.

## STENCIL REMOVAL

A gelatin stencil remover will completely remove the stencil and any red stain. When stencil remover is not available, bleach will remove the stencil, some stain may remain.

## SIZES

Sample roll: 26" x 100"  
Standard roll: 42" x 300"

*Custom sheets available on request.*