



# QUIKMASK PRO PURPLE SELF ADHESIVE FILM INSTRUCTIONS

QUIKMASK PRO PURPLE Self Adhesive Photo Mask Film is a four layer construction of light-sensitive material that incorporates the latest in photopolymer imaging systems. When exposed to ultraviolet light and washed with water, a highly detailed sandblast resistant mask is formed. With a unique self-adhesive quality, this mask can be easily transferred to your object to be blasted. The following are the steps necessary to successfully use our product for your sandblasting needs. As a reminder, QUIKMASK PRO PURPLE film is a light-sensitive product and for optimum results, should be used in yellow or safe light conditions. General purpose gold or yellow fluorescent or incandescent lights are satisfactory. Red ortho-safelights or yellow bug lights can also be used.

## MATERIALS NEEDED

Exposure Device • Washout Area • Blast Equipment

## SAFETY CONSIDERATIONS

Refer to MSDS for complete safety information.

## STORAGE

- Store packaged film in a cool, dry area. Do not refrigerate.
- Shelf life is 12 months.
- For convenient mask storage, use Silicon Release Paper to attach to dried, adhesive coated stencils.

## FILM EXPOSURE

Place the emulsion side of the film positive (negative) or the toner side of the paper positive<sup>1</sup> (negative) against the slip-sheet side of the QUIKMASK PRO PURPLE . The slip sheet can be distinguished from the carrier sheet by the following:

The slip sheet has a duller appearance compared to the shiny carrier sheet.

QUIKMASK PRO PURPLE film rolls are rolled with the slip sheet facing outward.

QUIKMASK PRO PURPLE film sheets are packaged with the slip sheet facing upwards.

The film positive may be in the form of an acetate generated by a stat camera or image-setter for very fine detail.<sup>2</sup> Paper positives generated by a laser printer or professional photocopier are acceptable when produced at proper settings; although, results can vary based on equipment, toner quality, and paper used. **Transparencies are not recommended.** Film positives should be right-reading emulsion side up for front blasting and right-reading emulsion side down for back blasting. A vacuum frame or weighted glass sheet should be used to assure firm contact of the film positive and the QUIKMASK PRO PURPLE film during exposure. Be sure to have a non-reflective black backing opposite your UV light source which backs the film to avoid possible reflection causing overexposure<sup>3</sup>. A latent image of the artwork will not be seen on the QUIKMASK PRO PURPLE film after exposure.

<sup>1</sup> Paper positives refer to vellums or drafting films. A 17 lb. vellum or 3 mil drafting film is recommended.

<sup>2</sup> Film positive (negative) is recommended for halftone artwork. Halftone film positives (negatives) are best created using a 35 or 45 dot screen (dpi). This provides good resolution and consistent development and transfers.

<sup>3</sup> Overexposure can cause image not to washout whereas underexposure can cause image to washout prematurely.

## SUGGESTED LIGHT SOURCES AND EXPOSURES

Light Source	Distance	3mil film	5 mil film
Metal Halide	40in / 100 cm	10-15 sec	15-25 sec
3 KW Metal Halide	36in / 80 cm	20-30 sec	30-40 sec
1 KW Mercury Vapour	18in / 45 cm	30-50 sec	45-60 sec
Mega U.V. units	4in / 10 cm	35-50 sec	50-70 sec

## 2. SLIP SHEET REMOVAL

Remove the slip sheet from the emulsion (the slip sheet has a duller appearance compared to the shiny carrier sheet). The slip sheet can be easily removed from the emulsion by separating it with your fingernail or by using the tape method. To use the tape method, apply a piece of tape to each side of the QUIKMASK PRO PURPLE film, then gently pull apart.

## 3. IMAGE DEVELOPMENT

Position the image in an upright vertical position with the emulsion (dull) side facing outward; clipping the film to a support plate in the washout area works well. QUIKMASK PRO PURPLE film can be washed out with water temperatures up to 120°F (49°C) using a pressure between 400-1200 psi (28-83 bar). The washout time will be under 1 minute in most cases. A spray gun may also be used but washout should not exceed 2.5 minutes. Washout times will be influenced by the amount of detail in the artwork (longer), the amount of film being developed, the water temperature and the water pressure being used. The warmer the water, the faster the washout. Do not wash QUIKMASK PRO PURPLE film under running water from a faucet. Using either washout method, care should be taken to spray in a slow and even motion until the image area develops clean of purple emulsion. Caution should be taken at high pressure not to concentrate on one spot as de-lamination of emulsion from the carrier sheet may occur. A gentle and steady sweeping motion from 8-12 inches (20-30 cm) away eliminates this potential. High pressure water is recommended for very fine detail and halftones. While this product is designed for easy washout with great image retention, extended washout time may cause loss of fine detail and tack. Testing has shown that developing QUIKMASK PRO PURPLE film with high pressure between 400-1200 psi will improve performance. Washing out with high pressures results in shorter washout and greater tack retention. A long washout may cause loss of detail and less tack.

## 4. DRYING OF MASK

Remove excess water with a blow dryer or pressurized air. This is especially important when drying halftones. At room temperature, dry the mask for 20-40 minutes; film should be uniform in colour and remain tacky to the touch. High humidity will extend drying time to 30-60 minutes. A drying chamber with heated circulating air will significantly reduce drying time. At 120°F (49°C), drying will take approximately 10 minutes. Drying time can also be reduced to 5-10 minutes by using a conventional blow dryer.

## 5. IMAGE TRANSFER

Apply the mask to the object in the correct position for blasting. Registration marks can be included on your positives to transfer accurately and easily. • Avoid wrinkles or large air pockets. Air pockets under the mask may cause lack of adhesion, therefore, resulting in blow-offs during blasting. If repositioning is impossible in order to remove an air bubble, prick it with a pin and tape the area to avoid blast through. • A good transfer may result in very small bubbles on the mask surface which will not interfere with either the transfer or the blasting. • Apply pressure to the back of the mask to assure firm contact of mask to the substrate. • Remove the carrier sheet from the mask by flicking a corner with your fingernail or knife and peel in one quick motion. Press down the image area with your thumb to assure firm contact. Burnishing is not required.

## 6. BLAST

Hold the blast gun 6-8 inches (15-20 cm) away from the object and perpendicular to its surface. • Recommended maximum pressure for a pressure-pot sandblast system is 25 psi (1.72 bar). A siphon (or suction) sandblast system should not exceed 80 psi (5.5 bar). • The grit size should be 180 or finer depending on the image detail. Recommended abrasive media is either pure aluminium oxide or silicon carbide. All manufacturer safety precautions should be closely followed. Recommended blasting temperature is 68°F (20°C) or higher. • Stage blasting can be accomplished with QUIKMASK PRO PURPLE 5 mil by putting separation lines around the area you wish to peel away and re-blast. Separation lines can vary in width, being either blastable or unblastable, depending on the desired effect. An knife can be used to remove intended portions of the mask, then re-blast.

## 7. REMOVE MASK

Peel the mask from the substrate. Fine pieces of film can be removed by rolling them off with the tips of your fingers. An alternate method is to soak the object in tap water for 10-15 minutes.



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