

# RapidMASK®

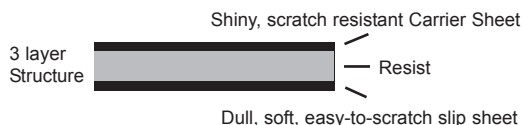
## High Detail

**2 Mil. Film (For halftones & light etching)** A No-Washout, Self-Stick, Photo Resist Film Designed and Manufactured by the People of PhotoBrasive® Systems and DuPont®

### WELCOME TO IKONICS IMAGING:

#### PhotoBrasive Systems

Thank you for purchasing RapidMask High Detail dry-processing, self-adhesive photo resist film. With no washout required, no adhesive application and an effortless slip sheet and carrier sheet removal, RapidMask High Detail will provide a simple, creative and productive sandcarving experience.



#### Required Materials

- Computer Generated Artwork
- UV Exposure Unit
- Sandcarving Cabinet and Abrasive Media

#### Safety and Handling

Refer to MSDS for safety information.

#### Storage

Store RapidMask High Detail in a cool (70°–80°F, 21°–26°C), dark, low humidity (<70%), or air conditioned environment to maximize shelf life (up to 2 years). Extended storage times outside of these conditions can adversely affect film performance with reduced adhesion and/or blast resistance. As an option, film can be refrigerated to extend shelf life.

**(DO NOT FREEZE).** RapidMask High Detail should be stored in its original package when not in use. Store rolls and sheets **horizontally**.

#### Production Environment

High Detail Etching requires care and cleanliness to minimize dust and dirt particles, particularly during film exposure and application.

#### Light Sensitive Product

While RapidMask High Detail has good white light stability (up to 2 hours working time under most indoor lighting), it is best to use the film in yellow safe light conditions until blasted. UV filtered yellow fluorescent lights or UV filter sleeves over white tubes are sufficient. Contact PhotoBrasive Systems for more information on UV filtration.

**NOTE:** *RapidMask High Detail remains photosensitive throughout the entire process. Keep film covered or use in safe light to prevent unwanted exposure.*

#### Artwork

There is nothing more important than starting with good quality artwork. RapidMask High Detail uses **photo positives vs. photo negatives** for photographs with halftones.

**NOTE:** *The clear areas of the artwork will etch. Clear = Blast. Unexposed RapidMask protects the substrate during blasting.* Artwork should include at least a 1/4" black border, which will assist in the removal of the carrier sheet and for masking off. Artwork can be made in-house using a standard inkjet printer and PhotoBrasive Systems' Water Resistant Accu-products, or PositiveFX drafting film with a laser printer. A toner enhancement may be needed to darken the printed areas with some laser printers when using Positive FX or other similar materials.

Photo negative artwork should be right-reading – toner or printed side up for front blasting, and right-reading–toner or printed side down, for back blasting. For best results, dark areas of the artwork must be completely opaque.



#### RapidMask Half-Wiz

For help creating halftones needed to etch photographs, consult a PhotoBrasive Systems' Representative or visit [www.photobrasive.com](http://www.photobrasive.com).



#### Film Exposure

When UV light passes through the clear areas of the artwork, RapidMask High Detail turns BLUE and brittle in those areas. The unexposed film (black area of artwork) remains green and rubbery. **DO NOT underexpose RapidMask High Detail.** The film must have sufficient exposure energy to become brittle. Since exposure units are not alike, follow the detailed set up instructions to ensure consistent results.

#### Setting Up Your Exposure Unit (test)

Cut several small strips of RapidMask High Detail approximately 0.5" W x 3" L. Place one strip of film under a clear piece of artwork into

your unit, so light passes through the artwork first. If using a Letralite, begin with a 90 sec. exposure time. Remove strip of film and note that it turned blue. Now bend it in half with the slip sheet out and crease it. It should make a "snap" sound when creased. If not, more exposure time is needed. Repeat test using a new strip of film adding 10 sec. more exposure for each strip tested. Repeat this test until the film is dark blue and snaps when creased. This is the proper exposure time setting for RapidMask High Detail in your particular unit.

**NOTE:** *The slip sheet side can be identified as the "softer" side when scratched with a fingernail, or as the inside layer within the natural curl of a sheet of RapidMask. The carrier side can be identified as the harder, "shiny" side and cannot be scratched with a fingernail.*

### Exposing RapidMask High Detail

Place the printed side of the artwork against the slip sheet side of the film. Position so U.V. light travels through the artwork onto the RapidMask High Detail.

#### Exposure Guidelines for Various Units

Exposure Light Source	Approximate Times
5 kw Metal Halide	40 integrator units
1 kw Metal Halide	60 integrator units
Letralite Exposure Unit w/ 25 watt bulb	1 1/2 minutes
Letralite marked "E" Exposure Unit w/ 15 watt bulb	1 1/2 minutes
Letralite marked "N" Exposure Unit w/ 15 watt bulb	2 minutes

\*Letralite model can be found on the bottom of the exposure unit. A sticker will indicate "E" or "N".

**NOTE:** *You should etch your fine detailed images within 24 to 48 hours of exposure to ensure good performance when etching. Held longer, the imaged areas can begin to deteriorate.*

### RapidMask High Detail Application

**NOTE:** *Used alone, RapidMask is not a suitable film for use with acrylic substrates. The peel after sandblasting is difficult, and becomes more difficult if the film and substrate are soaked in water. However, if the RapidMask is used in conjunction with B.A.T. (Blastable Adhesive Tape), the peel is greatly improved, especially when the film and substrate are soaked in water.*

**NOTE:** *For applications excluding glass, RapidMask may stain the substrate. The staining appears within 2 hours of film application to substrate. Testing the substrate is highly recommended. Please contact your PhotoBrasive representative with further questions.*

To minimize air entrapment and allow for proper positioning of RapidMask, the "wet application" method is recommended, particularly for halftones. Clean the substrate using a standard glass cleaner to remove dust and finger prints. Trim any exposed (blue) edges prior to application. Remove the protective slip sheet by placing a piece of tape on a corner and peel back. Spray the RapidMask (adhesive side) and substrate with a light mist of water. Place the film on the substrate and when positioned correctly, squeegee the carrier side from the center out to remove the water between the substrate and the film. Squeegee the entire surface well to ensure good adhesion. Using a piece of tape on a corner, remove the carrier sheet and carefully mask all edges. Let sit 15 minutes to optimize adhesion before starting to etch.

### Sandcarving

Place the object to be etched inside the sandblasting cabinet. Hold the blasting nozzle 4 to 6 inches away from the object and perpendicular to the surface. Begin blasting using a back-and-forth motion over the entire surface. Keep nozzle moving at all times. Do not concentrate on any one area. During the first few passes, you will notice the blue areas of the film will lighten and then disappear. Continue blasting until all "blue" areas of the film have disappeared and desired etched pattern / depth is achieved.

*(For more specific information about etching halftones, see "Supplemental Guide for RapidMask HD" on our PhotoBrasive Systems website)*

**NOTE:** *RapidMask High Detail can be blasted using a siphon or pressure-pot sandblast system. Recommended blasting pressure is between 20 – 30 psi when using a pressure-pot system or 40 – 60 psi when using a siphon system. For most applications, Silicon Carbide 180 grit is recommended. Grit size 220 is recommended for doing halftones above 40 dpi. Always follow the safety precautions recommended by the sandblast equipment manufacturer and grit supplier.*

### RapidMask High Detail Removal Options

- Peel or rub off while rinsing under warm water to prevent scratching of substrate.
- Soak in warm /hot water.

**For a copy of our helpful processing hints guide, please refer to [www.photobrasive.com](http://www.photobrasive.com) or contact your PhotoBrasive representative at 1-800-643-1037.**

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