

Screen Printing Process

Screen printing is a technique that involves passing ink through a porous fabric (the “screen”), thus creating a sharp-edged single-color image. Multiple-color images are produced by incorporating a separate registered screen for each color in the final image.

Step 1: Create your logo or custom design artwork to be screen printed.

Step 2: The formatted images for each color in the final print are cut on rubylith material using a cutter/plotter.

Step 3: The screen is prepared in a darkroom by applying a photo sensitive emulsion to the fabric of the screen and allowing it time to dry.

Step 4: The prints are attached to the screen and ‘burned’ by exposing them to intense ultraviolet light.

Step 5: The screen is pressure washed so the emulsion separates.

Step 6: All aluminum blanks are alodized (treated for painting and the application of retroreflective sheeting) according to FHWA (Federal Highway Administration) specifications.

Step 7: Ink is then applied to the top surface of the screen and is squeezed over the porous image, allowing the ink to pass through to the sheeted substrate underneath.



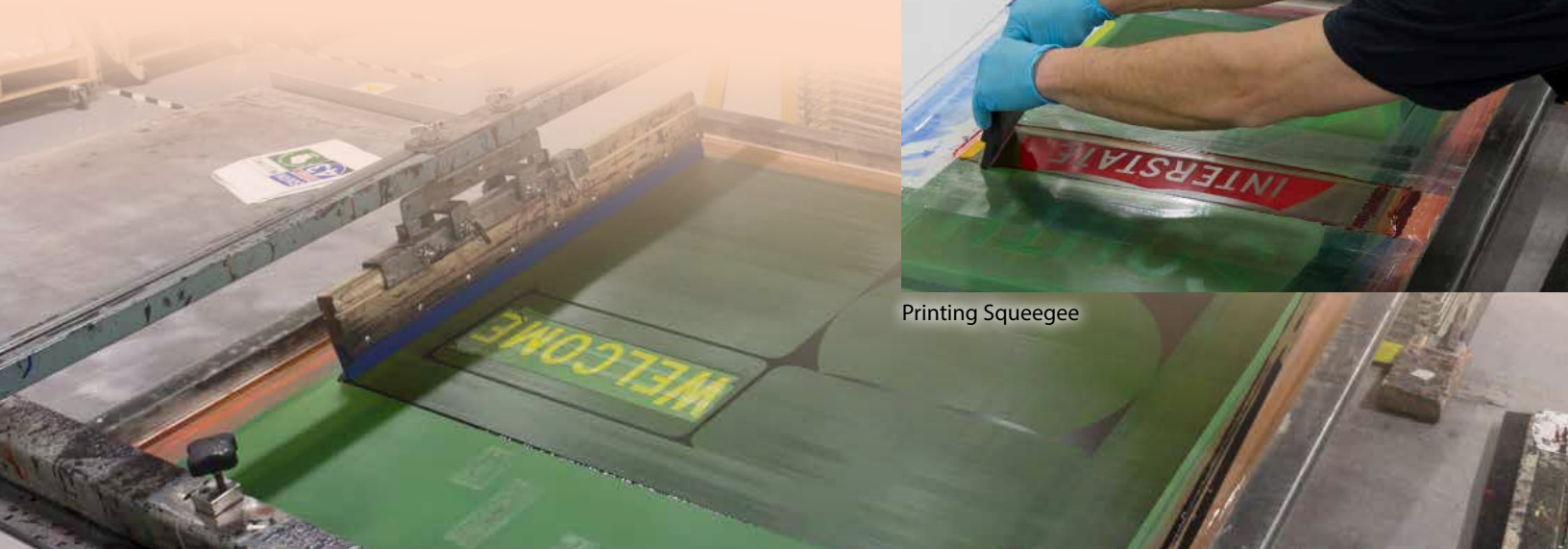
Screen Burning



Separating the emulsion from the image



Printing Squeegee



Comparative Factors	Screen Printing	Electronic Cuttable (EC) Film
Color Availability	Can produce all MUTCD colors, plus color matching is available for nearly any color you need	3M™ Yellow, Red, Orange, Blue, Green, Black (Opaque) and Brown
Multi-color Production	Superior production process, especially for intricate designs	Recommended only for simple, separate (unconnected) objects
Graphics Size Constraints	Intricate graphics possible	Lettering larger than 1" in height is recommended, and intricate designs may be difficult to cut
Production Time	Usually faster, especially in larger quantities	Faster only for small quantities (1 or 2) with simple graphics
Unique Processes Required	Screen Prep, Burning & Washing Screening & Drying	Film Cutting and Weeding; Transfer Tape application
Retroreflectivity	Equal or slightly lower with identical substrate (reflective sheeting)	Equal or slightly higher: depends on overlay and brightness of substrate
Durability	Good durability under most conditions, backed by 3M™ warranties	Good durability under most conditions, backed by 3M™ warranties

Signs made with 3M™ 3930 High Intensity Prismatic sheeting (or higher) and screen printed using 3M™ Series 880 inks, and fabricated to 3M™ specifications includes the 3M™ Match Component System (MCS) warranty.

For more information visit tapconet.com | (800) 236-0112 | sales@tapconet.com



Traffic & Parking Control Co, Inc. 5100 West Brown Deer Road, Brown Deer WI 53223 U.S.A. Phone (800) 236-0112 FAX (800) 444-0331
www.tapconet.com Printed in the U.S.A. Copyright 2017, Traffic & Parking Control Co, Incorporated

1005-00144 08/21/17