

Superior Stencils for All Applications

Autotype Capillex direct stencil films have a solid history of improving print quality, saving screen production time and satisfying the most demanding job requirements. They are used worldwide for screen printing applications that run the gamut, from garments and advertising specialties to fine art and industrial applications such as circuitry, nameplates and membrane switch components. Anything that can be screen printed looks better when printed with a Capillex stencil - and it's easy to use, too!



Autotype Capillex Laminating Fluid

Capillex Laminating Fluid is a thickened liquid for the application of capillary films in automated stencil application machines. It enables application in direct/indirect mode without increasing stencil profile, Capillex Laminating Fluid eliminates water marks, enhances adhesion and it is exceptionally easy to use. Available in 1-quart and 2.5 gallon containers.

For information on the MacDermid Autotype 'controlled profile' films, Capillex CP and Capillex CX, refer to individual product data sheets for each film. Data sheets are available online in PDF format at www.macdermidautotype.com or from your MacDermid Autotype representative.

YES WE CAN SM

It takes more than innovative, high performance products and superior technical service to help our customers compete and win in today's global marketplace. It takes a total commitment to understanding their needs and the ability to provide the right solutions—every time.

When success is your only goal, trust the company that says "Yes We Can."

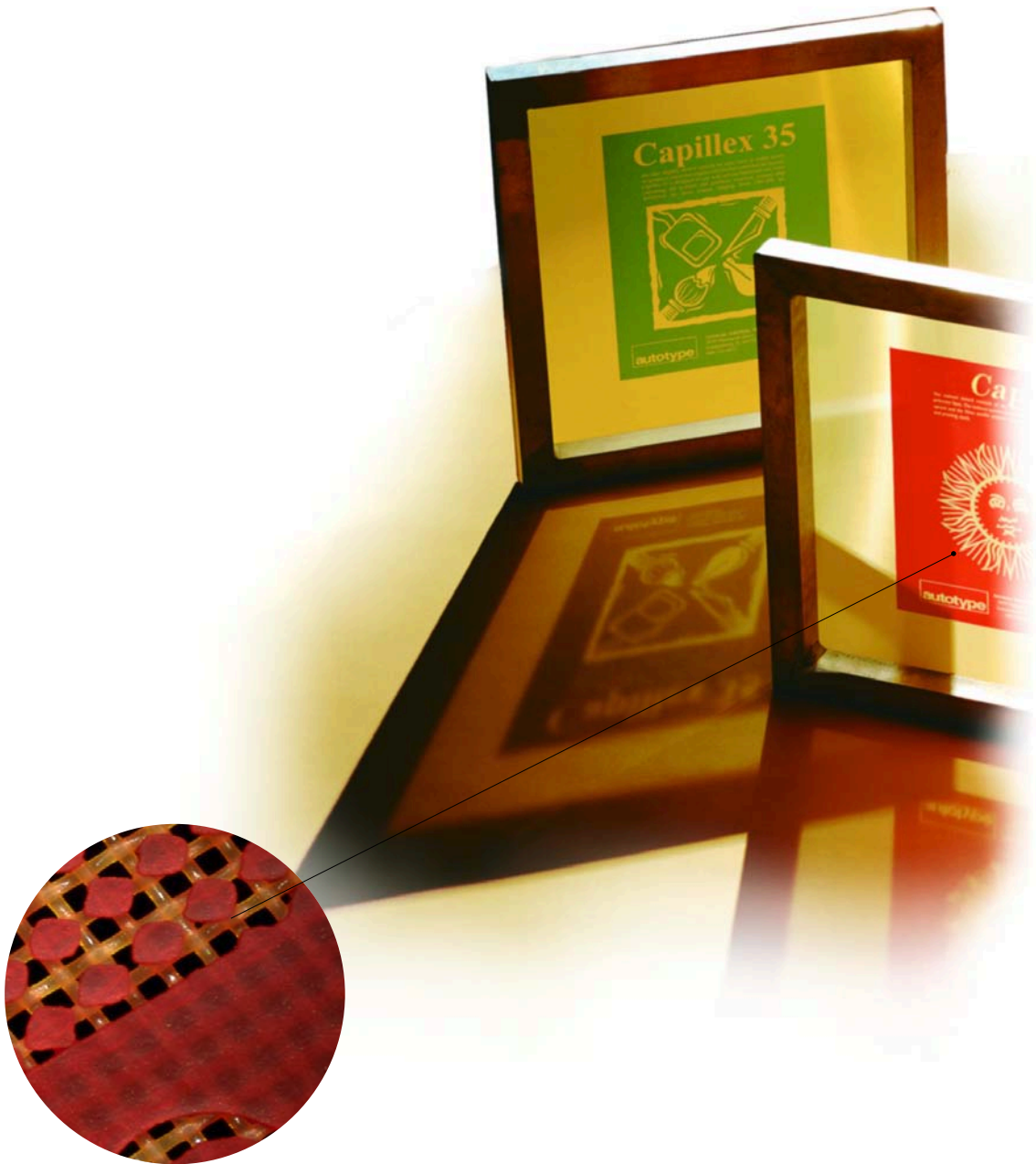
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Autotype Capillex[®]
Capillary Direct Stencil Film

**The Industry Standard for Fast, Easy,
and Superior Quality Stencil Production**



YES WE CAN



Does Capillary Film Really Make a Difference?

Screen printers have been asking this question since capillary films were first introduced over 20 years ago. After all, direct emulsions and capillary films have several things in common. They share similar chemical make-ups. Both are exposed and processed the same way. They stand up to the same inks and solvents and produce good stencils for printing good work.

So why should a screen printer use a capillary film that, square inch for square inch, costs? Over the years, Capillex users have answered this question, and their comments boil down to two reasons: quality and value.

Time Savings

With Capillex, total screen production time is significantly reduced, due to faster application to the mesh and shorter drying times after application.

Consistent Results

Because each Capillex film is suited to a specific range of mesh counts, the desired stencil thickness is achieved with just one application, unlike direct emulsions that usually require multiple coats with intermediate drying times. This not only shortens screen making time but improves stencil consistency as well.

Print Quality

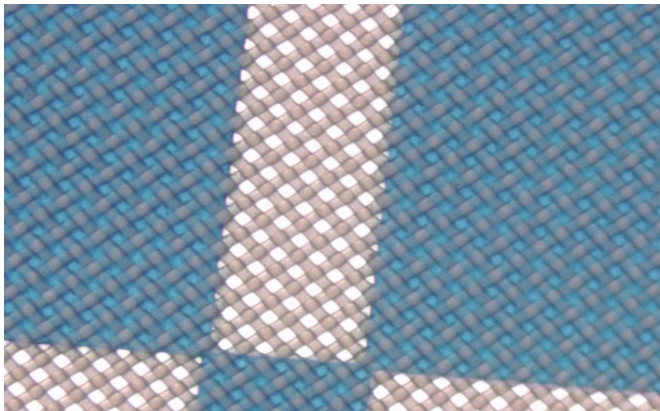
Stencils made with Capillex have smoother surfaces (lower Rz value) which produces cleaner and sharper printed edges by reducing sawtoothing. And while you can produce direct emulsions stencils that resolve fine lines and print sharp detail, it can be time consuming, inconsistent and variable from one mesh to another.

Value

The stencil represents a very small portion of job costs, particularly on long print runs. Factoring in all the benefits listed above, Capillex is recognized by screen printers as a valuable tool that improves quality, production efficiency, and customer satisfaction.

Product Sizes

All Autotype Capillex films are offered in custom cut sheets (100-sht. minimum) and in the following roll sizes: 24" x 394; 41" x 394; 48" x 394. Also available in rolls for use on automatic coating machines: 24" w. by 25 meters or 50 meters. Custom widths are available on request.



Autotype Capillex 18

This 18-micron film is highly recommended for use on fine meshes (305 tpi and higher) with UV-curable inks. The combination of fine mesh and low stencil profile produces the fine detail and thin ink deposits required for high quality printing with UV ink. Autotype Capillex 18 can also be used with solvent-based and plastisol inks. Do not use with inks containing water.

Typical Applications

- All UV printing applications
- POP graphics, including process color
- Ceramic and pressure sensitive decals
- Containers
- Plastic sheet goods and vinyl binders
- Printed circuit primary image & legends
- Nameplates, fascia panels, membrane switch overlays

The 'Spray Bottle' Method

Use this method for smaller screens.

1. Prep the mesh

Abrade new mesh and degrease all meshes, as described on the previous page.

2. Dry the screen

After prepping the mesh, dry the screen.

3. Prepare the application surface.

Place a 'build-up board' on a tabletop and cover with a few sheets of newsprint. The board should be flat, water resistant, and slightly smaller than the inside dimension of the screen. A piece of laminated pressboard or Plexiglas will work well.

4. Position the film for application.

Lay the sheet of Capillex, emulsion side up, on the newsprint-covered build-up board. Make sure the film is free of dust and dirt. Then lay the the screen, squeegee side up, on top of the Capillex. The mesh should be in close contact with the emulsion side of the film.

6. Wet the mesh to apply the film.

Using a spray bottle filled with water, begin spraying at the top of the screen, working toward the bottom. Spray evenly, making sure not to overwet or underwet any areas of the film.

7. Remove the excess water.

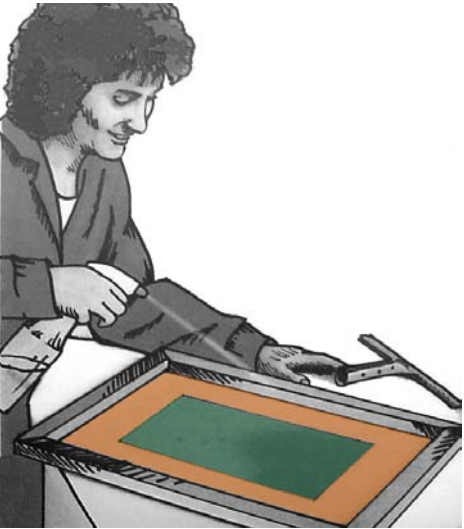
With the screen still on the build-up board, use a window squeegee to remove the excess water from the squeegee side of the mesh.

8. Dry the screen and then remove the backing film.

See the opposite page for description.

9. Expose and process as normal.

Once the Autotype Capillex is applied and dried, treat it as you would any direct emulsion. To reclaim the4 screen after printing, remove the stencil with the same products used to remove direct emulsions.



Spray the mesh, moving left to right and from the top to the bottom, and watch as capillary action draws the film's emulsion into the mesh. Be careful not to oversaturate the mesh. It doesn't take very much water to apply the film.



Gently squeegee off the excess water from both sides of the screen. Then lay the screen flat and dry thoroughly before removing the backing sheet.



Applying Autotype Capillex to the Mesh

The 'Roll Down' Method

Use this method for larger screens.

1. Prepare the film for rolling onto the mesh.

Roll the film, emulsion side out, around a plastic core that is slightly wider than the Autotype Capillex and narrower than the inside dimension of the screen. Remove any dust from the emulsion side of the film as it is being rolled around the core. Set aside in a light-safe area.

2. Prep the mesh.

Abrade new mesh with Autotype Autoprep Gel. Then

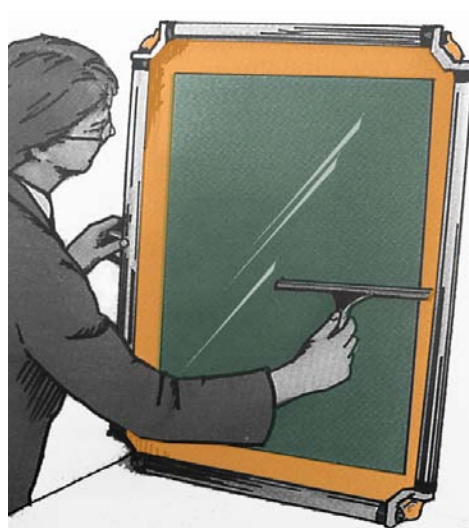
degrease both new and used meshes using Autotype Universal Mesh Prep. Rinse well and immediately prepare to apply the Autotype Capillex to the screen.

3. Roll the film onto the *print side* of the mesh.

Make sure the mesh is completely saturated with water and rewet if necessary. Contact the leading edge of the rolled film to the top of the screen, being careful to keep the rolled film in contact with the mesh at all times. Roll the film down onto the screen and ease the bottom edge carefully onto the mesh to prevent entrapping air between the film and fabric.



Roll the film down the wetted mesh. Use just enough pressure to ensure good contact of the emulsion to the mesh.



Gently squeegee off excess water and use a paper towel to remove any water dripping from the frame. Dry flat.



Remove the backing sheet. If it does not remove easily, continue drying the screen.

4. Remove excess water.

Using a window squeegee, remove excess dripping water from both sides of the screen. Then use a paper or cloth wipe to remove water that may be running from the frame into the screen.

5. Dry the screen.

Lay the screen print side down in a light-safe area. Use warm forced air to shorten drying time. Dehumidified air will speed drying also.

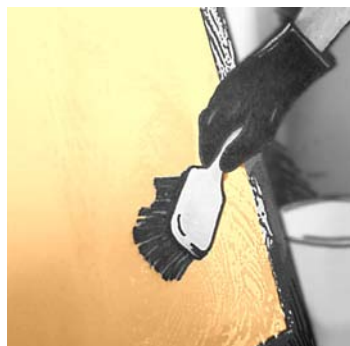
6. Remove the backing sheet.

When the Capillex is thoroughly dry, the backing sheet will remove easily. Dry the screen for a few more minutes after the backing sheet is removed.

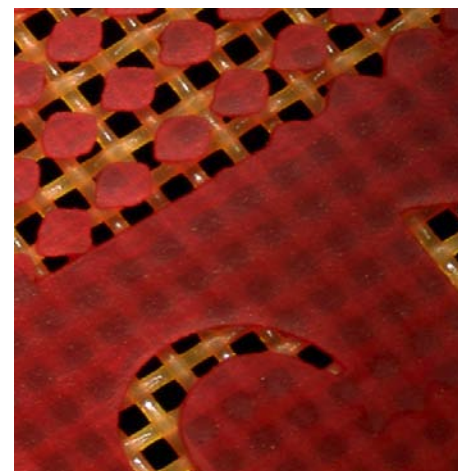
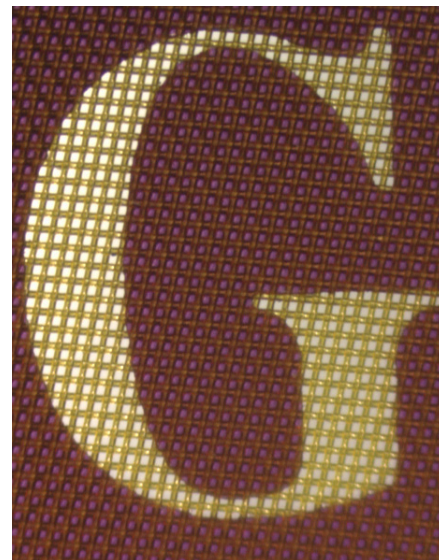
7. Expose and process the stencil.

Exposure and processing are the same as for direct emulsion.

For best results, use an Autotype Exposure Calculator to determine the optimum exposure time.



For better stencil adhesion, always prep the mesh properly before applying Autotype Capillex.



Autotype Capillex 25

A great choice for a wide range of screen printing applications that call for a high resolution stencil with excellent printed edge definition. Use it on mesh counts of 255-355 threads per inch, with solvent-based, UV-curable and plastisol ink systems. Autotype Capillex 25 is an outstanding and reliable stencil film that is also easy to reclaim.

Typical Applications

- POP graphics and displays
- Medium range halftones (~ 65 lpi)
- Garments
- Containers
- Plastic sheet goods and vinyl binders
- Nameplates, fascia panels, membrane switch overlays
- Decals: ceramic and pressure sensitive
- Printed circuit board legends

Autotype Capillex 30

Autotype Capillex 30 offers superior solvent resistance as well as excellent image resolution and printed edge definition. The SBQ photopolymer formulation offers extremely fast photographic exposure speed, yet Autotype Capillex 30 has excellent exposure latitude, tolerating some under- or overexposure without adversely affecting stencil quality. Use on mesh counts of 230-355 with solvent-based or plastisol inks.

Typical Applications

- POP graphics and displays
- Halftones and fine line detail
- Printed circuit board components
- Decals: ceramic and pressure sensitive
- Garments
- Nameplates, fascia panels, membrane switch overlays
- Industrial applications, including automotive
- Plastic sheet goods and vinyl binders



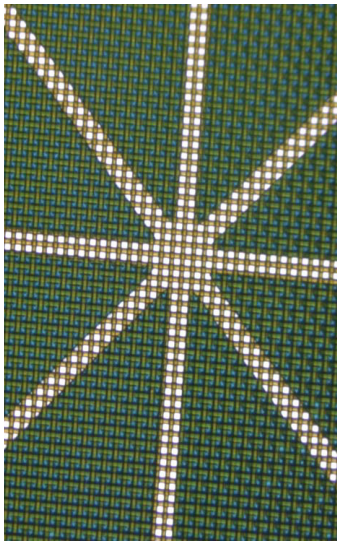
Autotype Capillex: The Industry Standard

Autotype Capillex 35

An excellent all-purpose stencil film for use with solvent-based and plastisol inks on mesh counts ranging from 180-280 threads per inch. Capillex 35 is very solvent resistant and offers excellent image resolution and printed edge definition for jobs where medium mesh counts are used.

Typical Applications

- Industrial applications requiring medium mesh counts and heavier ink deposits
- Garments
- Solder masks on printed circuit boards
- Printing on plastic and rigid sheet goods
- Spot color graphics, signage, posters, displays



Autotype Capillex 50

When a job calls for coarser mesh counts in the 90-230 tpi range, Capillex 50 offers superior print definition, abrasion resistance and excellent image resolution. Capillex 50 is also very resistant to solvents and humidity.

Typical Applications

- Garment decorating, including puff and other expanding inks
- Halftones below 55 lpi
- Peelable masks
- Solder masks on printed circuit boards
- Applications requiring a high stencil profile (EOM)



Autotype Capillex 80

This 80-micron stencil film produces thick stencils on very coarse meshes, with superior print definition and excellent resistance to solvents, humidity and abrasion. Capillex 80 also offers relatively fast exposure for such a thick film. Use Capillex 80 with solvent-based, plastisol and expanding inks on mesh counts of 155 tpi and lower.

Typical Applications

- Garment decorating, including puff and other expanding inks
- Halftones below 55 lpi
- Peelable masks
- Solder masks on printed circuit boards
- Gaskets and other applications requiring a high stencil profile, or for jobs requiring very coarse meshes

Select the perfect stencil film for any job by matching your job specifications to the Capillex features listed below.

✓✓✓ Good First Choice

✓✓ Good Second Choice

✓ Suitable

Selecting the Best Film for the Job							
	Job Specifications	Autotype Capillex 18	Autotype Capillex 25	Autotype Capillex 30	Autotype Capillex 35	Autotype Capillex 50	Autotype Capillex 80
Ink	Textile, plastisol	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
	Textile, water-based						
	Textile, expanding					✓✓	✓✓✓
	Solvent-based	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
	UV-curable	✓✓✓	✓	✓	✓		
	Silver conductive				✓✓	✓✓	
	Water-based graphics						
	Solder mask				✓✓	✓✓✓	✓✓
Mesh	Very coarse (<100 t.p.i.)					✓	✓✓✓
	Coarse (100-155 t.p.i.)					✓✓	✓✓✓
	Medium(155-255 t.p.i.)			✓	✓✓✓	✓	
	Med-Fine (255-305 t.p.i.)		✓✓✓	✓✓✓	✓✓		
	Fine (305-355 t.p.i.)	✓✓✓	✓✓	✓✓✓	✓		
	Very fine (> 355 t.p.i.)	✓✓✓	✓				
Artwork	Textile, spot color		✓✓	✓✓	✓✓✓	✓✓✓	✓✓✓
	Textile, process color	✓✓✓	✓✓✓	✓✓✓	✓		
	Graphics, spot color	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓	
	Graphics, process color <65 lpi	✓✓✓	✓✓✓	✓✓✓	✓✓	✓	
	Graphics, process color >65 lpi	✓✓✓	✓✓				
	Very fine line detail	✓✓✓	✓✓✓	✓✓	✓		
Print Run	Less than 1000	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
	1000 – 10,000	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
	10,000 – 50,000	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
	More than 50,000	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓