



PRODUCT DATA SHEET

FOUR COLOR PROCESS INKS

Four Color Process Inks

Product Overview:

QCM Four Color Process Inks are superior quality transparent plastisols formulated to achieve the most accurate 4 color process reproductions. These colors are finely milled, allowing the ink to pass easily through 405 TPI (159 TPcm) mesh resulting in minimal ink deposits while maintaining excellent color strength. For best results, print on white garments, cotton or cotton polyester blends of a tight weave. Open weave garments give a washed out appearance with process printing. If printing on colored garments, use a white underlay or base print.

Available in Colors:

WOW-219	PROCESS YELLOW
WOW-492	PROCESS MAGENTA
WOW-523	PROCESS CYAN BLUE
WOW-920	PROCESS BLACK

Related Items:

WOW-1001	HALFTONE BASE
LFP-429	HALFTONE RED (STRONG RED)

Artwork & Separations:

A good finished product starts with the original artwork. *Know the limitations of process printing on garments.* While it is impossible to exactly reproduce a photograph or full color piece of artwork, you can achieve a very good, even excellent representation, but it will never exactly match the original. This is due to limitations of line/dot size and density minimums required to screen print on garments. Be sure your customer is aware of that.

QCM Textile Inks now offers Art Separation Services.

Call now for more information: (800) 321-0170 or email us at colin.huggins@qcminks.com.

Screen Frames:

Variables in the four color process printing project must be kept under control. A very important part of this is controlling mesh tension, keeping it consistent. Retensionable frames allow you to control this very important aspect, whether you're printing four color process or standard printing. They are an excellent investment to ensuring quality.

Screen Mesh:

The recommended mesh for process printing is 355 TPI (139 TPcm). As low as 305 TPI (80 TPcm) or as high as 380 TPI (149 TPcm) is acceptable.

Pre-testing is imperative. Tension should be between 25-35 newtons.

Stencil:

Direct or indirect stencils.

Exposure:

A single point light source of 3K to 5K or above is recommended to ensure your finest halftones are represented. Always use an exposure calculator. Use clear film for the best D-min to D-max ratio for a clean burn – inkjet or silver-based film work great.

Squeegee:

A sharp, nearly straight up, triple durometer blade of 70-90-70 is recommended. Many printers still use 80 durometer blades, while others are experimenting with 90 durometer blades. Be sure your squeegee is the proper length for the image area. Squeegee angle and pressure must remain consistent.

Your Press:

Your press, whether manual or automatic, should be "dead on." If you have a four color process job pending, this is a good time for a tune up. Make certain your press can hold tight registration. Are your platens level? Are your print heads level, front to rear and side to side? If using retensionable frames, set your off contact to 1/16" (1.5mm) or less.

Important Notes:

Always pre-test process inks; remember - they are transparent. Inks are a variable in process printing. Different manufacturers' products appear "different" in the "wet" or container form. Some appear gelatinous while others, like QCMs, appear more like standard plastisol. The "wet" appearance is not an indicator of the ink's transparent value. Process inks are designed to be printed on white garments or printed on a white base on dyed garments. The ink, being transparent, will allow the under color of the garment to affect the color of the printed image.

Printing:

Use minimal pressure when flooding. If manual printing, maintain consistent squeegee pressure and angle. If all of the variables listed prior are addressed properly, one pass of each color will give you the best results. Added strokes will result in heavier deposits, increasing dot gain and compromising the quality of the print.

Ink Modification:

QCM Process inks are ready to use out of the container. If reducing strength of any one of the four colors is necessary, use QCM WOW-1001 Halftone Base to cut the intensity of the ink without altering color value.

Curing:

QCM Process inks cure at 310-330°F (154-165°C). Oven duration depends on your individual dryer and ink deposit. Test your dryer for temperature consistency daily. We recommend wash testing.

Cleanup:

Use any of the commercially available products for the cleanup of plastisol inks.

Environmentally Friendly:

QCM Plastisol Ink contains no leaded pigments and, when properly disposed of, has no environmental impact. Use a screen wash for plastisols for cleanup. Scrape screens carefully and store ink for reuse. Minimize unusable scrap ink by segregating ink by color. QCM PPR-901 Black pigment can be used to convert old ink into black ink for waste elimination.