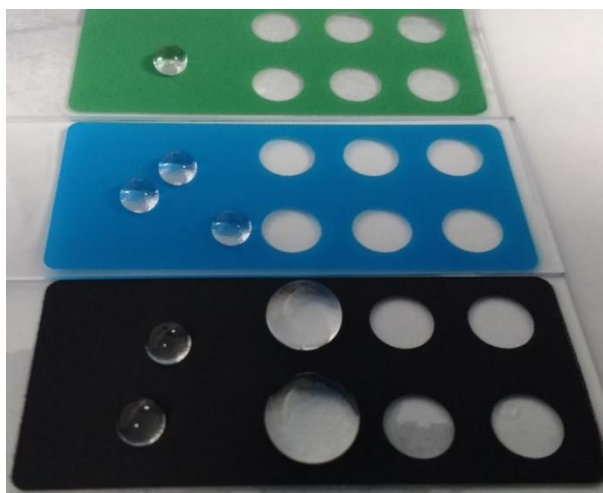


FluoroCoat Inks

FluoroCoat MH, S and U-series thixotropic inks are screen printable coatings used in manufacturing hydrophobic and super-hydrophobic diagnostic microscopy slides, microarray plates and microfluidic devices. The MH-series inks are PTFE-based, heat-curable, super-hydrophobic and solvent resistant. The S-series inks are smooth and hydrophobic. U-series inks are screen-printable UV-light curable inks that are water, oil and chemicals repellent. FluoroCoat series inks are translucent or pigmented. After proper curing, masks have contact angles to water between 115 - 150° and have great chemical and solvent resistance. These inks are available in a wide variety of colors including black, white, red, blue, yellow and a wide variety of others. Custom color-matching and optimization for other properties is also offered when needed.



FluoroCoat Ink Properties	MH-Series
% Polymer	50-75
Solvent Type	Hydrocarbon/Fluorocarbon
Solvent BP (°C)	220
Polymer Type	Fluoro-Epoxy
Color	White, Black, Other
% Functional	15-25
Pencil Hardness	>HB
Alcohol Resistance	Excellent
Acetone Resistance	Excellent
Toluene Resistance	Excellent
Water Resistance	Excellent
Phosphate Buffer Resistance	Excellent
Contact Angle to Buffer	> 100°
Contact Angle to Water	115-140°
Toxicity	Non-Toxic
Methods of Application	Screen Print and Pad Print



Screen-printing notes. Screen-printing FluoroCoat MH and S inks works well with 235 to 380 mesh poly screens with CP emulsions. Cure the printed ink by ramping heat from ambient to 200°C over 15 minutes and maintain at 200°C for 30 minutes. The handling window for the ink is about 6 hours of work time on the silk screen. Clean up with acetone or similar solvent that is safe for the screen emulsion. Please store unused ink at room temperature in tightly sealed container.

For UV-curable inks, the catalyst is MicroCure CTO-46 (a version of Isacure KTO-46). This cures between 360-420 nm. The handling window for the ink is about 4 hours but can be longer if you dilute (10% weight for weight) with butyl-acetate. You can clean the screen with acetone, ethanol, tri-ethyl-phosphate or any other wash that does not hurt the screen.

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8000 Virginia Manor Rd, #130
Beltsville, MD 20705, USA
www.cytonix.com
emailbox@cytonix.com
301.470.6267