

# Technical Data Sheet

Product Code: **AG 300-800nm INK**

Product Description:

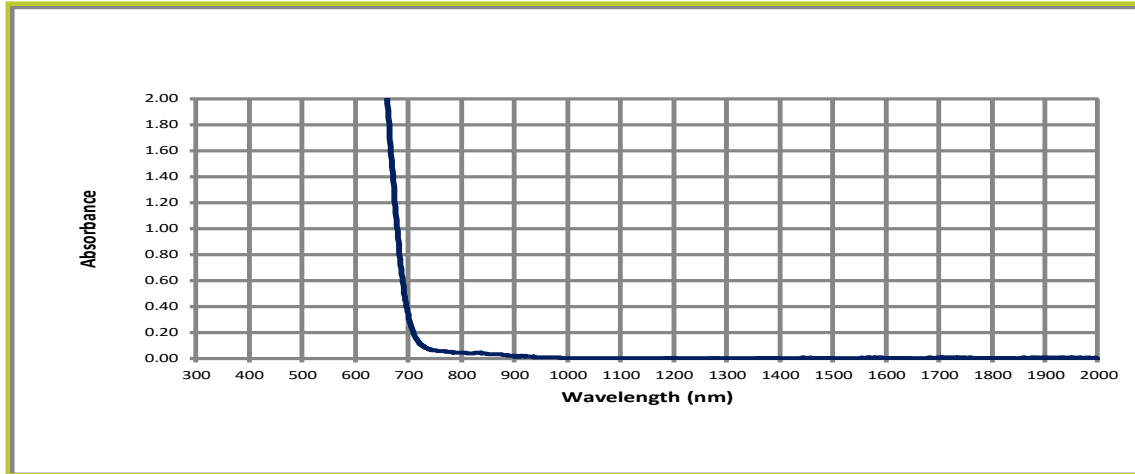
IR Transmitting / Visible Blocking Solvent Ink

## Properties

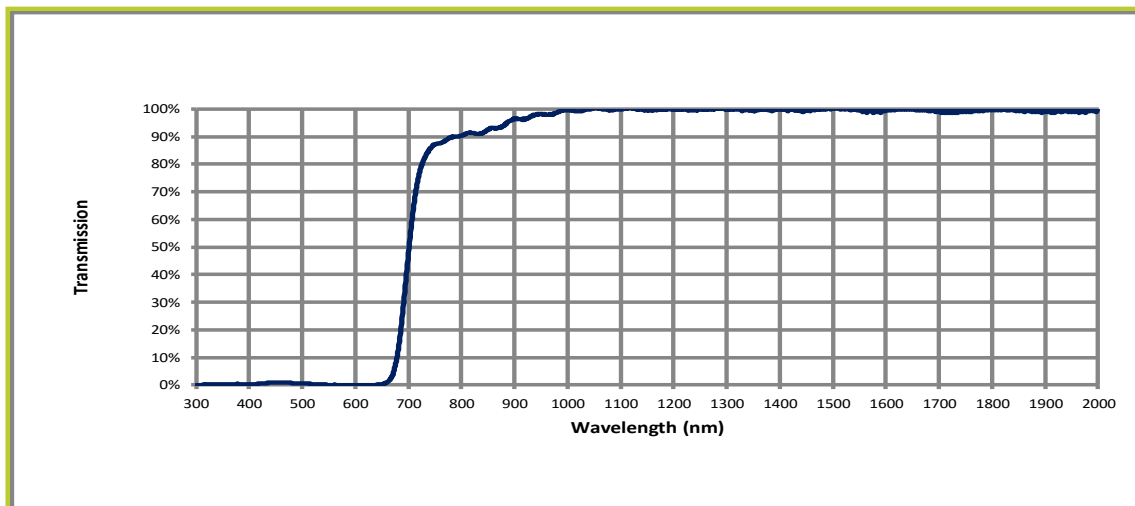
Appearance: **Black Ink**  
Transmission: **300-650nm < 1%**  
**800nm 93%**  
**900nm 96.75%**  
**1000nm 99.95%**

\*Based on thickness of ~7  $\mu\text{m}$

Absorption Curve



Transmission Curve



Due to its' excellent balance of properties, **AG 300-800nm Ink** finds use in a broad range of applications where the absorption of visible light, and the transmission of infrared light is important.

**AG 300-800nm Ink** is formulated to adhere to transparent polycarbonate, pre-treated polyester and acrylic. The ink allows high transmission at wavelengths starting from 800 nanometers and longer and exhibits good opacity with low visible light transmission. Transmission efficiency may be affected by the ink layer and addition of additives to the ink; spectrometer measurements may vary. Thorough testing is necessary before any production run.



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## Mesh

200-305 tpi (78-120 tpcm) monofilament polyester mesh for most applications.

## Stencil

Use direct emulsions and capillary films which are solvent resistant.

## Squeegee

70-80 durometer polyurethane squeegee.

## Printing

AG 300-800nm Ink is formulated to be press ready. Add only enough ink to the screen to be able to print for 5/10 minutes. Add additional ink in small increments throughout the print run to maintain screen stability. Thoroughly mix the ink prior to printing. Improper mixing can lead to inconsistent color and ink performance.

Maintain ink temperature at 65°-90°F (18°-32°C) for optimum print and cure performance. Lower temperatures increase the ink viscosity, impairing flow and increasing film thickness. Elevated temperatures lower the ink viscosity, reducing print definition and film thickness.

Pretest to determine optimum printing parameters for a particular set of ink, substrate, screen, press, and drying variables/conditions.

## Drying / Curing Parameters

Conveyorized dryers set at temperatures of 150°F - 190°F (66°C - 88°C) will dry the ink in 30 to 40 seconds. Good air circulation is necessary to remove the vaporized solvents. Multiple layers of ink may require longer drying times than a single layer. Block resistance should be carefully tested prior to stacking printed pieces.

## Storage / Shelf Life

Store closed containers at temperatures between 65°-78°F (18°-25°C). Storing products outside of these recommendations may shorten their shelf life. Ink taken from the press should not be returned to the original container; store separately to avoid contaminating unused ink.

AG 300-800nm Inks are useable for a period of at least 18 months from the date of manufacture.

## Ink Handling

All personnel mixing and handling these products must wear gloves and eye protection. Clean up spills immediately. If ink does come in contact with skin, wipe ink off with a clean, dry, absorbent cloth (do not use solvent or thinner). Wash the affected area with soap and water. Consult the applicable Safety Data Sheet (SDS / MSDS) for further instructions and warnings.



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