
IMAGEMARK XR PRODUCT DATA SHEET

Imagemark XR is a high performance Ultra Violet curable screen printing ink specifically formulated for multiple substrate adhesion performance. XR is the broadest ink system of its type offering the versatility to adhere to nearly all point of purchase stocks, including HDPE and fluted polyolefin stocks without the addition of a catalyst. XR exhibits a durable, high slip surface with excellent outdoor durability.

PERFORMANCE PROPERTIES

- NVP and heavy metal free
- No additives required for adhesion to Coroplast®
- Flexible for multi-layer applications and die-cutting
- Good water resistance without additives
- Excellent water and moisture resistance with the addition of XR-1550 Water Resistant Additive
- Outstanding adhesion to a wide variety of substrates
- Low tack finish for easy handling of double sided prints
- Rapid cure rates, ideal for multi-color presses

RECOMMENDED SUBSTRATES

- Pressure sensitive vinyls
- Polycarbonate
- Polystyrene
- * Fluted Polyolefins (Coroplast®)
- ABS
- Acrylic
- Rigid Vinyl
- Board Stock
- Expanded Foam PVC
- Coated and Uncoated Paper
- Anodized Aluminum
- Many Coated Metals

* A minimum of 40 Dynes of surface energy is recommended for all Polyethylene and Polyolefin stocks.

CURING SPECIFICATIONS

Imagemark XR will cure well when printed through 355 plain weave polyester mesh or finer. **XR's** optimal cure window of 125 - 175 mJ / 550 – 650 mW is generally achieved with one 200 watt per inch mercury vapor lamp at belt speeds between 65 - 75 feet per minute. Stock selection may necessitate additional energy. Adhesion should be a minimum of 95% from curing unit with final adhesion developing within six hours of initial polymerization. Coarser fabrics can be utilized; however, curing parameters may need to be adjusted for the increased ink film. If a loss of gloss or adhesion due to insufficient cure is noticed, the addition of 5 - 10 % XR Mixing Clear will increase light penetration and improve cure. Intensity of cure, weight or caliper of the material as well as elevated ambient temperatures and humidity of the printing and storage environments can influence the block resistance of stacked prints.

* It is the printer's responsibility to pre-test and qualify the parameters, prior to each run.

COVERAGE

Imagemark XR will yield an average of 3200 to 3600 sq. ft. per gallon based on film deposit of 0.40 to 0.60 mil, dependent on color and printing conditions.

SQUEEGEE

A 70-90 Durometer polyurethane blade is recommended.

INK MODIFICATION

The addition of 2% XR-1550 Water Resistant Additive is recommended where improved water and moisture resistance is required. XR Mixing Clear may be added to reduce opacity thus increasing cure speed. XR Mixing Clear is not recommended for viscosity reduction. UV Universal Thinner is recommended for viscosity reduction. It is not recommended to exceed 10% by total weight as this will reduce cure rate and may affect adhesion.

LIGHT FASTNESS

At full strength and fully cured, XR Series ink has been formulated to withstand 2-3 years of exterior exposure. The use of Overprint Clear will increase the inks outdoor durability. Factors beyond our control that may negatively impact the outdoor durability expectations include but are not limited to: substrate grade/age, poor cure of ink film, directional positioning, ink film deposit, exposure to excessive abrasives and air pollutants.

METALLICS

XR Metallic Mixing Clear is supplied for use in mixing metallic powders or pastes. The increase in viscosity of Metallic Mixing Clear helps insure a good particle suspension and maintain a good premix shelf life. The recommended mixing ratios are 8% by weight of silver powder and 20% of gold powder or 12% of silver paste and 28% of gold paste. For optimum coverage and opacity, 280-305 meshes are recommended. With the use of XR Overprint Clear, extended weatherability and improved non-tarnishing properties can be achieved.

COLOR AVAILABILITY

Imagemark XR is available in twenty standard opaque colors and nine Color Matching System shades. Inktech's Color Formulating Guide reproduces over 1,000 colors utilizing the CMS shades. Custom matches, fluorescent, metallic and transparent colors are available upon request.

STANDARD COLORS

XR-0101 Primrose Yellow	XR-0205 Reflex Blue
XR-0111 Lemon Yellow	XR-0225 Forest Green
XR-0123 Medium Yellow	XR-0226 Lime Green
XR-0131 Brilliant Orange	XR-0210 Ultra Blue
XR-0135 Vivid Orange	XR-0220 Emerald Green
XR-0141 Fire Red	XR-0235 Teal
XR-0151 Scarlet Red	XR-0240 Purple
XR-0155 Rubine Red	XR-0260 Brown
XR-0160 Rhodamine Red	XR-0301 Opaque Black
XR-0180 Warm Red	XR-0311 Opaque White
XR-0190 Process Blue	XR-1350 Overprint Clear
XR-0200 Peacock Blue	XR-1710 Metallic Mixing Clear
UV -1800 Thinner	

COLOR MATCHING SYSTEM COLORS

XR-0064 CMS GS Yellow
XR-0066 CMS RS Yellow
XR-0114 CMS Orange
XR-0121 CMS YS Red
XR-0164 CMS BS Red
XR-0165 CMS Magenta
XR-0127 CMS Violet
XR-0230 CMS Blue
XR-0325 CMS Green
XR-0110 Shading Black
XR-0112 Tinting White
XR-1700 Mixing Clear

PROCESS COLORS

Imagemark XR four color process colors exceed "SWOP" standards. Variation in densities may be achieved with the use of XR Halftone Base.

	High Density	Back-lit Density
XR-Halftone Yellow	1.10	1.35
XR-Halftone Red	1.75	2.05
XR-Halftone Blue	1.80	2.20
XR-Halftone Black	2.00	2.25
XR-Halftone Extender Base		

FLUORESCENT COLORS

Imagemark XR is available upon request in nine shades of fluorescent colors. Fluorescent pigments are not light stable. For maximum brightness and color stability, 260 – 305 mesh count is recommended.

XR-0900 Magenta	XR-0940 Chartreuse	XR-0970 Pink
XR-0910 Orange/Red	XR-0950 Red	XR-0980 Orange
XR-0920 Green	XR-0960 Orange/Yellow	XR-0990 Blue

CAUTION:

Read Material Safety Data Sheet prior to using.
End user must determine suitability of this product for the intended use prior to production.
Always premix prior to use.