

Claira™ M3 Ink Mixing System

Technical Data Sheet #351

5/13/2010

Wet Ink Tack	Low
After Flash Tack	Low
Printability	Excellent, for fast production
Surface Appearance	Thick ink film = semi-matte Thin = matte
Opacity/Viscosity	High / Medium
Bleed Resistance	None except M39000 White
Gel Point/Flash Time	160°F (71°C.)
Fusion Temperature	320°F (160°C)
Squeegee Hardness	70-80 durometer
Squeegee Blade	Sharp
Squeegee Angle	45° to screen mesh
Squeegee Speed	Maximum
White Underlay	NPT Cotton White for 100% cotton dark
Low Bleed Underlay	EL9240 Snap White for poly/cotton
Print Stroke	Maximum speed, light pressure
Emulsion	Direct, Indirect, Capillary film
Screen Tension	As recommended for mesh
Mesh Count	86-305 mc in (34-120 mc cm)
Extender	ES0840 or EH0542
Thinner	EA0005 Viscosity Reducer
Thickener	M00010 Thickener #10 (powder)
Storage	65°F to 95°F (18-35°C). Avoid direct sun.
Cleanup	Bio-degradable screen washes
MSDS	#38
Color Range	See Products Available
Substrate Type	100% Cotton
Substrate Color(s)	Lights and Darks

Description

M3 Ink Mixing System is a non-phthalate finished ink mixing system. M3 colors directly replace the M2 and EM ink mixing colors. They are opaque resulting in excellent coverage on dark garments. The tack-free formula allows printing through a range of mesh counts without the need for a viscosity modifier. Use a white underlay when printing on dark fabrics for that extra "pop" in brightness. No build-up formulations ensure the highest print efficiencies without down time for wiping screens.

Features

- High performance for 100% Cotton.
- Non-phthalate printing inks.
- NPT Low Bleed White underlay for printing on polyester/cotton blends.
- NPT Cotton White underlay for printing on 100% cotton.
- Claira NPT Barrier Base (Dyno Grey) available for printing on 100% polyester
- Low crock and semi-matte finish
- Great opacity with quick flash.
- Mix thousands of finished ink colors by choosing Pantone colors from our M2007 Ink Mixing Software or by custom mixing your own colors!

Application

Printing on White Garments:

Mix per formulation or by eye to achieve brilliant colors on 100% cotton whites. For extremely soft-hand prints, mix finished color up to 1:1 with Claira ES0250 NPT Chino Base.

Printing on Dark Garments or over an underlay:

When printing on dark garments, mix per formulation or custom blend to achieve brilliant colors over an underlay. Use the NPT Low Bleed White on poly/cotton blends and the ES0266 NPT Barrier Base when printing on 100% polyester

Puff designs:

Mix 10-15% of Claira NPT Puff Additive to any formulated Claira™ Color to create a puff ink.

Special Recommendations

Claira Colors™, bases, modifiers and additives should be mixed in clean vessels using clean mixer blades and utensils. Any contamination from other ink sources or non-approved additives could make Claira Colors™ test positive for the restricted phthalates.

- **Do not dry clean, bleach, or iron the printed image.**

Note to 100% cotton users: With low bleed ink, 100% cotton could produce a ghost image. Claira M39000 NPT LB NG RETRO WHITE is a low-bleed ink that is formulated to print on cotton or polyester cotton without causing a ghost image. M39000 NPT LB NG RETRO WHITE is not recommended for 100% polyester. Use Claira Barrier Base for 100% polyester.

Rutland Plastic Technologies does not knowingly add plasticizers containing the phthalates listed and outlined in California Bill 1108, CPSC HR-4040 and Oeko-tex Standard 100. The plasticizers identified may include di-(2-ethylhexyl) phthalate (DEHP), dibutyl phthalate (DBP), benzyl butyl phthalate (BBP), diisononyl phthalate (DINP), diisodecyl phthalate (DIDP), di-n-octyl phthalate (DnOP), (DIBP) Di-iso-butyl, and (DMP) Dimethylphthalate, including esters of ortho-phthalic acid and are not direct ingredients in the manufacture of Claira™ High Opacity Non-Phthalate Mixing System Inks and Claira™ Non-Phthalate Concentrate Mixing System Inks. Rutland Plastic Technologies does not test the final product for amounts of the aforementioned phthalate plasticizers and esters and encourages all users to conduct testing for their intended use.

Claira™ M3 Ink Mixing Systems

TDS#351 CONTINUED

Products Available

PRODUCT	DESCRIPTION	USAGE
M31017	NPT OPAQUE FLUOR MAGENTA M3	Single Pigment mixing color
M31037	NPT OPAQUE FLUOR VIOLET M3	Single Pigment mixing color
M31440	NPT HO VIOLET M3	Single Pigment mixing color
M32065	NPT OPAQUE FLUOR BLUE M3	Single Pigment mixing color
M32441	NPT HO BLUE #1 M3	Single Pigment mixing color
M32442	NPT HO BLUE #2 M3	Single Pigment mixing color
M32443	NPT HO MARINE M3	Single Pigment mixing color
M33033	NPT OPAQUE FLUOR GREEN M3	Single Pigment mixing color
M33443	NPT HO GREEN M3	Single Pigment mixing color
M34037	NPT OPAQUE FLUOR YELLOW M3	Single Pigment mixing color
M34041	NPT OPAQUE FLUOR LEMON M3	Single Pigment mixing color
M34449	NPT HO YELLOW M3	Single Pigment mixing color
M35018	NPT OPAQUE FLUOR ORANGE M3	Single Pigment mixing color
M36055	NPT OPAQUE FLUOR PINK M3	Single Pigment mixing color
M36056	NPT OPAQUE FLUOR RED M3	Single Pigment mixing color
M36446	NPT HO SCARLET M3	Single Pigment mixing color
M36447	NPT HO RED M3	Single Pigment mixing color
M38394	NPT HO BLACK M3	Single Pigment mixing color
M39000	NPT LB NG RETRO WHITE M3	Single Pigment mixing color
M39256	NPT HO WHITE M3	Single Pigment mixing color
M31018	NPT FF FLUOR MAGENTA M3	Single Pigment RSL mixing color
M31038	NPT FF FLUOR VIOLET M3	Single Pigment RSL mixing color
M34042	NPT FF FLUOR LEMON M3	Single Pigment RSL mixing color
M36057	NPT FF FLUOR RED M3	Single Pigment RLS mixing color

PRODUCT	DESCRIPTION	USAGE
M00004	LIQUID THICKENER	Add 1 to 2.0% to increase viscosity
M00009	QUICK FLASH ADDITIVE	Use up 10% for quick flash
M00010	POWDER THICKENER	Add 0.25 to 0.50% to raise viscosity
M00023	FLAME RETARDANT ADDITIVE	Add 7.5 to 10% to retard flame of NPT plastisol ink
M00047	RELEASE AGENT	*Add up to 10% to Claira ink for foil release
EA0001	NPT FIBERBOND	3.5% for fibrillation & 7.5% for adhesion to nylon
EA0005	NPT VISCOSITY REDUCER	1.0 to 3.0% to reduce viscosity and tack
EA0014	TRANSFER ADHESIVE POWDER	Sprinkle coat wet transfer prints before gel
EA0015	NPT DULLING PASTE/ SUEDE ADDITIVE	2% for matte finish-15% to create Suede
EA0055	NPT PUFF ADDITIVE	Use at up to 15% to create a puff ink.
<p>* Adding Release Agent to plastisol inks will increase the likelihood of Fibrillation and Crocking. Test each application before proceeding to make production runs by Wash testing and Crock testing.</p>		