

# **PRODUCT INFORMATION**

# **FEATURES**

- ► Superior Flexibility for Embossing and Switch Actuation
- ► Compatible with Transfer Adhesives
- ► Flexibility in Multiple Layers Allows Die Cutting, Embossing, Punching
- ▶ Highly Opaque Colors
- ► Clean Transparent Shades for LED or Window Applications
- ► Superior Screen Stability

## **THINNING**

Stir well before every use. Techmark should be thinned 10% to 15% with TM-TH Thinner for manual printing and 20% to 25% with TM-TH Thinner for most machine printing applications. For high speed machine printing (credit card/plastic card printers) thin Techmark 20% to 25% with TM-FTH Fast Thinner.

Under extremely hot shop conditions or slow printing applications, use TM-RT Retarder or TM-SRT Slow Retarder. When printing fine line detail or reverse copy, use 15% to 20% Techmark Gel Retarder (TM-GRT). The use of Gel Retarder will prevent the viscosity of the ink from becoming too thin while retarding the drying speed. Excessive amounts of Gel Retarder may reduce the gloss level slightly.

#### **MESH**

Techmark prints well through 230 to 305 (90 to 120/cm) monofilament polyester fabrics.

#### **STENCIL**

Stencil materials must be solvent resistant. Dirasol 911, SuperCoat 915, and SuperCoat 916 dual cure, or, Dirasol 132 one pot direct emulsions are recommended to give the highest print quality and stencil durability. Solvent-adhered stencil films should not be used with Techmark.

# **DRYING**

Techmark will jet dry at 120°F to 140°F (50°C to 60°C) in 70-140 seconds. Overprints may require additional dwell time. Techmark

will air dry in 17 to 24 minutes dependent on substrate and ink deposit.

## COVERAGE

Standard line colors should yield 1400 to 1800 square feet/gallon (33 to 42 m²/liter) when thinned 15% and printed through 230 (90/cm) monofilament polyester fabrics.

#### **USE WITH TRANSFER ADHESIVES**

Techmark is compatible with most of the transfer adhesives used in nameplate and membrane switch applications.

For optimum performance with transfer adhesives, it is critical to fully dry all solvents from the ink film to prevent delamination. To ensure thorough drying, allow a 24 hour period between the last color printed and application of transfer adhesives.

#### **WASH UP**

Wash up on press with Xtend<sup>™</sup> press washes and after the production run with Xtend<sup>™</sup> ink degradents.

## **PRE-PRODUCTION TESTING**

It is strongly recommended that all substrates be tested before use as supposedly similar substrates can vary between manufacturers and even between different batches from the same manufacturer. Certain plastics may be impregnated with lubricants which, like plasticizer migration, may impair adhesion and block resistance, even a considerable period after printing. Other plastics can become brittle or caused to curl after printing.

The end-user must determine suitability of these products, for the intended use, prior to production.

# **COMPATIBILITY WITH OTHER INKS**

Techmark may be printed over properly dried prints of Polyplast. Likewise, Polyplast may be printed over properly dried prints of Techmark. Techmark may be intermixed with Polyplast.

# **COLOR AVAILABILITY**

The Techmark color range includes 21 high opacity standard colors, the four color process or halftone colors, and 10 clean transparent shades.

#### FOUR COLOR PROCESS COLORS

Techmark four color process colors are matched to "SWOP" standards (Specification Web Offset Publication). The densities are slightly higher than SWOP under most conditions and, therefore, offer scope for adjustment with the addition of halftone base.

# **SPECIAL MATCHES**

Special colors can be supplied against prints, wet ink, PANTONE®\* numbers, or other Fujifilm Sericol standard colors.

#### **METALLICS**

Techmark Mixing Clear (TM-MX) is recommended for use with metallic powders. Recommended mixing ratios are 8% by weight of silver powder and 20% by weight of gold powder. Meshes should range between 260 and 305 (102 to 120/cm) monofilament polyester. Due to the possibility of chemical changes after mixing, it is recommended that metallic shades are freshly mixed daily.

# **STANDARD COLORS**

ITEM	DESCRIPTION
TM-101	Primrose Yellow
TM-111	Lemon Yellow
TM-121	Medium Yellow
TM-131	Brilliant Orange
TM-141	Fire Red
TM-151	Scarlet Red
TM-155	Rubine Red
TM-160	Rhodamine Red
TM-180	Warm Red
TM-185	Yellow
TM-190	Process Blue
TM-200	Peacock Blue
TM-205	Reflex Blue
TM-210	Ultra Blue
TM-215	Green
TM-301	Opaque Black

TM-302	Matte Black
TM-311	Opaque White
TM-312	Super Opaque White
TM-SB	Shading Black
TM-TW	Tinting White
TM-MX	Mixing Clear
TM-OP	Overprint Clear
TM-SOP	Satin Overprint Clear

## **HALFTONE COLORS**

ITEM	DESCRIPTION
TM-HTY	Halftone Yellow
TM-HTR	Halftone Red
TM-HTB	Halftone Blue
TM-HTK	Halftone Black
TM-HTX	Halftone Extender Base

#### TRANSPARENT COLORS

ITEM	DESCRIPTION
TM-240	Tsp Primrose Yellow
TM-250	Tsp Medium Yellow
TM-255	Tsp Gold
TM-260	Tsp Stop Sign Red
TM-265	Tsp Dark Red
TM-270	Tsp Orange
TM-280	Tsp Green
TM-290	Tsp Blue
TM-295	Tsp Purple
TM-315	Tsp Dead Front Black

# THINNERS/RETARDERS

ITEM	DESCRIPTION
TM-TH	Thinner
TM-RT	Retarder
TM-SRT	Slow Retarder
TM-GRT	Gel Retarder

\*Pantone, Inc's check-standard trademark for reproduction and color reproduction.

# **CREDIT CARD/PLASTIC CARD PRINTERS**

The following Techmark TM products are for Credit Card/ Plastic Card industry specific printing requirements. These products should not be used for graphic overlay and membrane switch printing.

ITEM	DESCRIPTION
TM-026	Opaque CC White
TM-MMX	Metallic Mixing Clear
TM-FP	Flattening Paste
TM-FTH	Fast Thinner

#### **STORAGE**

Containers should be tightly closed immediately after use. At the end of long printing runs, surplus ink from the screen hould be disposed of. Refer to Material Safety Data Sheet (MSDS) for materials and conditions to be avoided.

In the interest of maximum shelf life, storage temperatures should be between 50°F (10°C) and 77°F (25°C). When stored under these conditions the maximum shelf life is shown by the use by dates, which are clearly marked on all ink containers.

## SAFETY AND HANDLING

Refer to MSDS for safety, handling, and waste disposal information.

#### **OUTDOOR USE**

Accelerated weathering tests have been conducted on prints produced with Techmark in the QUV. Under these conditions, Techmark colors, with the exception of TM-180 Warm Red, withstood 1000 hours of testing before significant color deterioration was evident. Color matches intended for extended outdoor use should not contain TM-180 Warm Red. Accelerating machine weathering tests cannot be precisely related to actual outdoor performance, but it is considered that 1000 hours of exposure approximately equates to up to two years outdoor exposure in temperate climates.



# THE FUJIFILM GREEN POLICY

We at Fujifilm believe that "sustainable development" of the Earth, mankind, and companies in the 21st century is an issue that must be addressed with the highest priority. As a socially responsible corporation, we actively undertake corporate activities with our

environmental values in mind. We strive to be a dedicated steward of the environment and assist our customers and corporate partners in doing the same.

The information and recommendations contained in this Technical Data Sheet, as well as technical advice otherwise given by representatives of our Company, whether verbally or in writing, are based on our present knowledge and believed to be accurate. However, no guarantee regarding their accuracy is given as we cannot cover or anticipate every possible application of our products and because manufacturing methods, printing stocks and other materials vary. For the same reason our products are sold without warranty and on condition that users shall make their own tests to satisfy themselves that they will meet fully their particular requirements. Our policy of continuous product improvement might make some of the information contained in this Technical Data Sheet out of date and users are requested to ensure that they follow current recommendations.