

## 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 m<sup>2</sup>/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 press washes and after the production run with ink degradants.

### 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 Nazdar 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™ 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 should 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.

Nazdar Ink Technologies  
8501 Hedge Lane Terrace Shawnee, KS 66227 USA  
1-800-677-4657 | +1 (913) 422-2255  
[www.nazdar.com](http://www.nazdar.com) | [NazdarOrders@nazdar.com](mailto:NazdarOrders@nazdar.com)



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.

---