



## Techmark IMD Solvent-based Screen Inks for In-mould Decoration

Techmark IMD is a jet dryable ink for use in producing 3-dimensional plastic parts by In-Mould Decoration. Techmark IMD can be used for both first and second surface printing of polycarbonate substrates for IMD applications, as well as for direct printing onto a range of other plastics.

### Metallic Shades

Metallic shades can be made by mixing Sericol Metallic Powders MP with Techmark IMD RT382 Metallic Ink Medium. Mixing suggestions are as follows :

Techmark IMD RT382 Metallic Ink Medium	95 parts
Metallic Powder MP	5 parts

For additional durability an addition of 5% Nylobag NB386 Catalyst to the above mix is recommended.

Metallic shades may be tinted using Techmark IMD Seritone Base Colours. **Universal Tinters UT should not be added to Techmark IMD inks.**

### Outdoor Use

Accelerated weathering tests have been carried out on prints produced using Techmark IMD Seritone Base Colours in a Marr Weatherometer set on the BS 3900 F3 Cycle. Under these conditions, the inks withstood over 2,000 hours of testing without significant colour deterioration. This figure is comparable to approximately 24 months outdoor exposure in the UK or similar climate.

**Metallic shades would not be expected to show the same longevity as other shades.**

### Catalyst

Techmark IMD can be used as a simple one-pack system, however for more demanding applications adhesion and resistance properties can be improved by an addition of NB386 Catalyst.

Catalysed inks have a mixed pot life of approximately 8 hours. Estimate the amount of ink required for a day's work and mix thoroughly in the following ratio :

Techmark IMD Ink	20 parts by weight
Catalyst	1 part by weight

**Catalysed ink left over at the end of the printing run should be discarded.**

### Seritone Matching System

The Seritone Matching System enables printers to readily match special colours in-house.

The system consists of 12 lead-free base colours, including black, white and extender base, each of which has been selected for its cleanliness of tone and suitability for intermixing. Using the base colours plus Tinting Black, Tinting White and Extender Base, almost any colour can be produced.

### Plastics

Certain plastics may be impregnated with lubricants that, like plasticiser migration, may impair adhesion and block resistance even a considerable period after printing. This can be overcome by wiping the surface with White Spirit before printing. Surface adhesive left from the protective papers on rigid PVC and Acrylic sheets should be thoroughly removed in line with suppliers' instructions.

## Main Characteristics

### Finish

Satin for first surface applications.

### Drying and Curing

Jet Drying : 60-90°C for 3-5 mins.

For optimum resistance to the Injection Moulding process, it is important that drying removes all solvent from the printed ink. It is strongly suggested that tests are conducted to establish the level of drying for the print set-up used, particularly when using additions of ZV558 Retarder.

### Thinning

Up to 20% ZV542 Thinner.

Fine and slow speed printing use up to 10% ZV558 Retarder.

### Wash-up

Seriwash Universal Screen Wash.

### Mesh

Colours: 62.64 - 120.34 monofilament.

Metallics: 62.64 - 90.48 monofilament.

### Stencil Type

Direct, Indirect, Capillary.

### Recommended:

Dirasol 916

### Coverage & Mesh No.

Colours: 60-70 m<sup>2</sup>/kg/90.40.

Metallics: 40-45 m<sup>2</sup>/kg/71.55.

### Applications

First and second surface printing onto polycarbonate for IMD applications. Direct printing onto self-adhesive vinyl and some other plastics.

### Colour Range

12 intermixable lead-free shades including Seritone base colours and metallic ink medium.

### Properties

Low odour. Jet drying. Excellent screen stability & self-solvency. Excellent performance in both Forming and Injection Moulding processes

### Co-use with other inks

It is not recommended that Techmark IMD is mixed with any other ink ranges.

### IMPORTANT

**Stir well before every use. Always test application fully before beginning a production run as there is often considerable variance in plastics from different manufacturers and even between batches of the same material.**

## Standard Colours

Techmark IMD:

RT010		Tinting Black
RT030		Tinting White
RT064	(s)	Seritone Yellow (Green Shade)
RT066	(s)	Seritone Yellow (Red Shade)
RT114	(s)	Seritone Orange
RT191	(s)	Seritone Red (Yellow Shade)
RT164	(s)	Seritone Red (Blue Shade)
RT165	(s)	Seritone Magenta
RT127	(s)	Seritone Violet
RT230	(s)	Seritone Blue
RT325	(s)	Seritone Green
RT381		Extender Base
RT382		Metallic Ink Medium

(s) = Seritone Base Colour

Available in 1 and 5kg containers

## Catalyst

NB386 Catalyst

Available in 0.2 and 1 Ltr containers

## Solvents

ZV542 Vinyl Thinner and Cleaner  
ZV558 Retarder

Available in 15, 5 and 1 ltr containers

## Special Matches

Matches can be supplied against prints, wet ink samples or to PANTONE®\* references, British Standard, 'HKS', 'Munsell' or Seritone numbers. A sample of the substrate to be printed with the number and type of mesh to be used as well as other relevant data should be attached to orders.

Minimum order quantity 5 Kgs.

## Safety and Handling

Techmark IMD:

- Is formulated to be free from any ( toxic ) carcinogenic, mutagenic or reprotoxic chemicals.
- Is formulated free from lead and other heavy metals, and is tested to comply with the EN71-3:1998 Toy Safety Standard.

Comprehensive information on the safety and handling of screen inks and solvents is given in the appropriate Sericol Safety Data Sheet, available upon request.

## Environmental Information

Techmark IMD:

- Does not contain ozone depleting chemicals as described in the Montreal Convention.

\*PANTONE® is the property of Pantone, Inc.

*The information and recommendations contained in this Product Information 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 Product Information sheet out of date and users are requested to ensure that they follow current recommendations.*

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