

# Advanced Pad Printing Ink Technology: One Ink for All Substrates

Many factors can influence the end result of the pad printing process, and like tires on a car, the ink is often the most overlooked component. When a customer examines a logo on a pen, golf ball, baseball, hockey puck or stainless steel coffee mug, they are not asking themselves how that logo got onto the product. What they are looking for is cosmetic appeal and durability. It is with this thought that we look at just ink.

Ink use has been viewed as a sort of black art in the past, with pad print operators adding thinners and additives by feel or look, thus creating many of their own problems. Fortunately, ink technology has come a long way.  
(see fig. 1 for the Thinner Mixing Guide.)

## SUBSTRATE KNOWLEDGE

How many of us can easily tell the difference between the many different types of engineered plastics? This is the dilemma facing pad printers and it becomes even more difficult as new engineered plastics enter the market. An error in choosing the wrong ink could result in not only the cost and headache of reprinting the job but may also include replacing the product which can be tens or hundreds of times the value of the printing itself, or in the worst case scenario lose you a valuable customer.

## ADVANCED TECHNOLOGY: ONE INK FOR ALL SUBSTRATES

Ten years ago, Pentex realized the challenges pad printers faced in respect to the growing number of substrates they were asked to imprint, and challenged its chemists to develop one ink to print on all substrates. As a result, InkFlexx was born. With the successful development of one ink to print on all substrates, InkFlexx has become the dominant pad printing ink of choice in the Canadian market place.

## INKFLEXX PREMIUM INKS FORMULATED FOR PAD PRINTING

Extensive research and development has brought forth this premium line of pad printing inks which doubles as a superior screen printing ink when high quality detail printing and opacity are required. It may be used as received or the pigmentation may be reduced with extenders to produce equally excellent results.

## HIGH DEFINITION INK TRANSFER

Optimum ink transfer is achieved by means of a sharp balance between the surface tensions of the corresponding surfaces; Transfer Pad, Ink, Cliché and the substrate which results in a high definition print (including Four Color Process).

## HIGH OPACITY COLORS

The high opacity of the ink allows printing of high relief surfaces and printing of light colors on dark substrates with a single hit.

## QUICK DRYING

The quick drying properties allow high speed printing of multiple colors while still maintaining high gloss characteristics.

## WEAR RESISTANCE

The very good mechanical and chemical resistance exhibited by the basic ink may be enhanced by means of the available MP2000 series additives.

## INKFLEXX COLOR MATCHING SYSTEM

A wide range of colors are designed to be used as is or as mixing colors to achieve compatibility with various color systems including the Pantone® colour system.

## INKFLEXX MATERIAL APPLICATION GUIDE

Very good adhesion to a wide variety of materials: ABS, Acrylic, PBT, PET, PET G, Polyamides, Polycarbonates, Thermo-rigid Polyester, Rigid and Flexible PVC, SAN, Glass, Stainless Steel, Aluminums, Chrome Plate, Iron, Coated and Galvanized surfaces.  
(see fig. 2 for the InkFlexx Application Guide.)

## THINNER MIXING GUIDE

Thinner is calculated by weight of the MP2000 series Premium Pad Printing Ink.

|                           |           |
|---------------------------|-----------|
| MP2000-01 White           | 20 %      |
| MP2000-02 Black           | 30 – 35 % |
| MP2000-03 Primrose Yellow | 20 – 30 % |
| MP2000-04 Medium Yellow   | 20 – 30 % |
| MP2000-06 Orange          | 25 – 30 % |
| MP2000-07 Vermillion Red  | 25 – 30 % |
| MP2000-08 Carmine Red     | 25 – 30 % |
| MP2000-10 Magenta         | 25 – 30 % |
| MP2000-11 Medium Blue     | 30 – 35 % |
| MP2000-12 Deep Blue       | 30 – 35 % |
| MP2000-15 Violet          | 25 – 30 % |
| MP2000-16 Brilliant Green | 25 – 30 % |
| MP2000 17 Silver          | 20 – 25 % |
| MP2000-18 Rich Gold       | 25 – 30 % |
| MP2000-19 Rich Pale Gold  | 25 – 30 % |

FIGURE 1 - THINNER MIXING GUIDE



EXAMPLES OF INKFLEXX'S ONE INK TECHNOLOGY

