

with
ICC
profile



The Proof is in the Print

The commercialisation of the flatbed digital printer has brought with it the opportunity to print on practically any substrate. However, this does not guarantee a long-term performance as the digital print inks will not key to every substrate the same. When printing on the principal sign substrates such as aluminium composite, digital printers require a material that will not simply print but will produce vibrant and long-lasting images with far less fading, especially when subject to the vagaries of the UK weather.

Alupanel® Digital is a new aluminum composite panel that delivers on both fronts according to manufacturer Multipanel and supplier, Perspex Distribution, speaking at The Sign Show.

Alupanel® Digital is the product of 12 months development with a special coating for vastly improved ink adhesion. Developed in tandem with Alupanel® Digital Plus which has the ability to be formed post-print, without detriment to the printed colour or image, the Alupanel® Digital range clearly demonstrates tremendous durability. With a majority of aluminum composite panels going to outdoor applications, “durability was the key driver in developing this product” according to Multipanel’s UK Managing Director, Andrew Cock.

With a completely flat, white surface, the Alupanel® Digital sheet also provides the ideal base for direct digital printing. That said the print performance of any substrate can

be further enhanced through the process of profiling. Recognising this, material supplier to the print sector, Perspex Distribution offer the Alupanel® sheet to their customers with a free of charge, bespoke ICC profile.

Gary Henton, Product Development Manager at Perspex Distribution explained that the company has always been about colour. "Colour and quality are synonymous with the Perspex® name and helping our customers to achieve high definition, high visibility print with accurate colour just seems like a natural extension to what we do".

Detailing the profiling process, Henton explained that "initially, we have our customer print a colour chart with known amounts of CMYK. The colour patches printed are then measured using a spectrophotometer, an instrument that measures colour in almost exactly the same way as the human eye interprets it. The results achieved from the printer-ink-Alupanel® combination are then recorded, including the density, colour and fluorescence of the ink. Working from these measurements and adjusting the settings towards a known reference or input profile, a CMYK reference library is established. This is the ICC output profile that we supply to the printer on a USB which can be easily uploaded to the printer's RIP".

The profiled Alupanel® sheet then has the added benefit of reducing or even eliminating the need for time consuming and expensive make-ready's with accurate and repeatable colour achieved from the first print to the last. This ensures that the Alupanel® Digital sheet not only works in helping to achieve vibrant, longer-lasting images but also works just as well to increase the efficiency of the printer.

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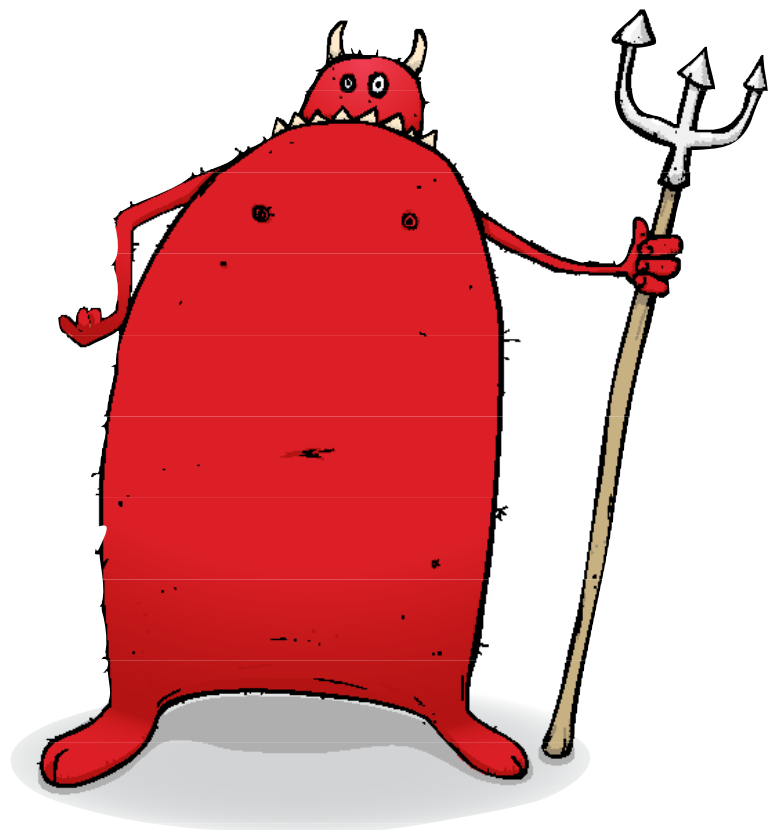
Devil's Advocate ...

Q. WHY DO DIGITAL PRINT INKS NOT KEY TO EVERY SUBSTRATE THE SAME?

A. Solvent inks chemically interact with a substrate by softening it, to deposit and embed the pigment into the substrate. However, this actually weakens the molecular bond of the substrate itself. Digital print or UV-cured inks do not key the same as they sit on the surface of the substrate and dependant upon the substrate's surface will vary in terms of scratch resistance and outdoor longevity.

Q. HOW DOES ALUPANEL® DIGITAL IMPROVE INK ADHESION?

A. Alupanel® Digital is coated in the latest micro-engineered, PE paint that allows the ink to key into the top surface of the panels. This special coating is used on both sides of the panel and gives a far better ink adhesion when compared to standard coatings used on other aluminium composite sheet.



Q. HOW CAN ALUPANEL® DIGITAL PLUS BE FORMED AFTER PRINTING WITHOUT DETRIMENT TO THE PRINTED IMAGE?

A. Alupanel Digital Plus has a special coating that gives the panel a level of flexibility to allow post-print processing without adversely affecting the printed colour or image. Alupanel Digital Plus can be routed, folded, rolled and formed in the normal way with conventional tools after printing with a good quality ink and no cracking or flaking of the print will occur.

Q. WHAT IS AN ICC PROFILE?

A. ICC profiling was originally born out of necessity, when the likes of HP, Microsoft, Apple and Adobe recognised the differences in colour between a monitor and a printer. To tackle the problem they formed the International Colour Consortium to define standards, based around an ICC profile and subsequently, have evolved to advance the process of colour management per se.

An ICC profile lets one piece of hardware or software know how another device or image has created its colours and how they should be interpreted or reproduced. Hence the reason why an ICC profile works back from the print machine as it is currently set through the initial step of printing a colour chart.

There are two types of ICC profiles - input profiles and output profiles.

An ICC input profile tells the printer how something should look.

An ICC output profile is the fingerprint of the printer, its ink and the substrate it prints on - what we at Perspex Distribution will supply with our Alupanel® sheets.

Q. HOW DOES A PRINTER USE AN ICC PROFILE?

A. The ICC input and output profile can be set through the printers RIP software which converts an image made up of vectors, lines and pixels into the ink dots that a printer is designed to discharge onto the substrate.

Q. WHAT ARE THE BENEFITS OF AN ICC PROFILE?

A. An ICC output profile is a vital element for a successful colour management workflow. An individually produced ICC output profile for your printer, ink and substrate combination can save you time and media. This profile when used in conjunction with an ICC input profile will aid the printer to produce optimum quality, reproducible and repeatable results, first time and every time.

