ISO 12647

Technical info on ISO 12647

The ISO 12647 printing standard

The ISO 12647-2:2004 standard has been created as an international standard, setting a series of tight guidelines for reproducing colour across the reprographic and printing workflow. These specifications can be bought from the International Standards Organisation at www.iso.org. They contain detailed information on all parameters, process and measurement techniques to ensure conformance to the standard. The standard has many parts but part 2 contains information specifically relates to our printing technology, that of 'offset lithographic processes'.

Why define and use a standard?

By predefining a target standard for the reproduction of colours international brands, print managers and publishers can convey exactly how they wish their project to be reproduced. This eliminates misunderstandings of requirements across the projects workflow that is nearly always broken between the creative, prepress and the printing parts. With complete conformance across these parties, colour consistency improves and less waste is created, as digital information, proofs and printing are all aligned.

Targets and verification

With all standards comes specific parameters that have to be followed and verified. ISO 12647 is no exception. The specification has detailed targets and measurement settings for each process, including differing paper types. Within each of these targets, tolerances have been defined to ensure that the specification takes into account manufacturing variables. We have, at present, only taken out of the specification information relating to coated paper types – which the majority of our work fits into. Process control software has also been deployed within our workflow to verify both proofs and printing conforms to the ISO 12647 defined print condition - these include GMG proofcontrol and Mellow Colour ISOLitho.

Density and CIElab

The latest ISO printing specifications uses the CIElab model and Spectrophotometry for target solid colour measurement readings, as opposed to density weights traditionally used for on press measurement. The main reason for this change is to eliminate differences in printing with different Inks, as all inks have slightly different properties. However, densitometry is still used in the ISO specification for dot gain measurement.

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Bellbrook Park, Uckfield • East Sussex TN22 1PL • T. +44 (0)1825 768611 • F. +44 (0)1825 768042 • www.beaconpress.co.uk