



# TECHNICAL STANDARDS CATALOG

February 18, 2011

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
<b>CGATS Standards</b>		
1200106	<p><b>CGATS.4 - 2006</b>  <b>Graphic technology - Graphic arts reflection densitometry measurements - Terminology, equations, image elements and procedures</b>            This standard defines terms, equations, image elements and procedures for measurement and communication of data when using reflection densitometer instrumentation for graphic arts. It provides practical information for quantifying image characteristics of graphic arts processes. 23 pp.</p>	\$15
1200309	<p><b>CGATS.5 - 2009 (identical national adoption of ISO 13655:2009)</b>  <b>Graphic technology - Spectral measurement and colorimetric computation for graphic arts images</b>            This standard establishes procedures for the measurements and colorimetric computations appropriate to objects that reflect, transmit, or self-illuminate, including flat-panel displays. It also establishes procedures for computation of colorimetric parameters for graphic arts images. Graphic arts includes, but is not limited to, the preparation of material for, and volume production by, production printing processes that include offset lithography, letterpress, flexography, gravure and screen printing. This standard does not address spectral measurements appropriate to other specific application needs, such as those used during the production of materials, e.g. printing ink, printing paper and proofing media. 37 pp.</p>	\$50
1200103	<p><b>CGATS.7 - 2003 (R2008)</b>  <b>Graphic technology - Pallet loading for printed materials</b>            This standard specifies the stacking, unitizing, protection and labeling of palletized printed materials. It also specifies the functional design of pallets used to transport printed materials, and gives specifications for their loading onto delivery vehicles. 24 pp.</p>	\$15
1200107	<p><b>CGATS.9 - 2007</b>  <b>Graphic technology - Graphic arts transmission densitometry - Terminology, equations, image elements and procedures</b>            This standard defines terminology, equations, process control elements and procedures for measurement and communication of transmission densitometry data for graphic arts halftone images. Although this standard addresses halftone applications, there are situations where non-traditional halftones and/or continuous tone materials are used for which these computations are also appropriate. 12 pp.</p>	\$15
1200209	<p><b>CGATS.17 - 2009 (identical national adoption of ISO 28178:2009)</b>  <b>Graphic technology - Exchange format for color and process control data using XML or ASCII text</b>            This standard defines an exchange format for color and process control data (and the associated metadata necessary for its proper interpretation) in electronic form using either XML or ASCII formatted data files. It maintains human readability of the data as well as enabling machine readability. It includes a series of predefined tags and keywords, and provides extensibility through provision for the dynamic definition of additional tags and keywords as necessary. It is focused primarily on spectral measurement data, colorimetric data, and densitometric data. 36 pp.</p>	\$50
1200122	<p><b>CGATS.20 - 2002 (Reaffirmed 2007)</b>  <b>Graphic technology - Variable printing data exchange using PPML and PDF (PPML/VDX)</b>            This standard specifies the methods for the use of the Personalized Print Markup Language (PPML) and the Portable Document Format (PDF) for the exchange or identification of all elements necessary to render a variable data imaging job as intended by the sender. This standard specifies document layout and content data and makes provision for product intent specifications using the Job Definition Format (e.g., paper selection, binding, finishing, etc.). This standard is not intended to address applications where printing is started before the file creation and transfer is complete (often called streaming applications). 40 pp.</p>	\$40
1201095	<p><b>CGATS TR 001 - 1995 (Reaffirmed 2003) + Supplement 1</b>  <b>Graphic technology - Color characterization data for Type 1 printing (Technical Report Only)</b>            The ANSI Technical Report provides public access to, and a reference for, colorimetric characterization data describing offset lithographic printing. The technical information supporting this Technical Report, and previously published in ANSI CGATS.6 - 1995 (R2001), <i>Graphic Technology-Specifications for graphic arts printing-Type 1</i>, which has been withdrawn, is included as Supplement 1 to CGATS TR 001. 60 pp.</p>	\$20
1201195	<p><b>CGATS TR 001 Data</b>  <b>Graphic technology - Digital Data for CGATS TR 001 - 1995 (R2003) (Data Only)</b>            This disk contains the digital data, in ASCII format, in support of CGATS TR 001, including the colorimetric data shown in Annex A of the Technical Report. It includes tabulations of the average spectral data for each of the measured patches. Available as zipped file or on CD-ROM.</p>	\$20
1201295	<p><b>CGATS TR 001 - 1995 (R2003)</b>            Set Includes the Technical Report TR 001 (including Supplement 1) and related data at a package price.</p>	\$30
	<p><b>CGATS/SNAP TR 002-2007</b>  <b>Graphic technology - Color characterization data for coldest printing on newsprint</b>            This Technical Report provides color characterization data for cold-set printing on newsprint performed in accordance with the SNAP Specifications.            Available as a free download from the NPES website at: <a href="http://www.npes.org/Standards/tools.html">http://www.npes.org/Standards/tools.html</a>. 32 pp.</p>	FREE Download
	<p><b>CGATS/SWOP TR 003-2007</b>  <b>Graphic technology - Color characterization data for SWOP® proofing and printing on U.S. Grade 3 coated publication paper</b>            This Technical Report provides color characterization data for proofing and sheet or web offset printing of publication input materials on U.S. Grade 3 coated publication paper performed in accordance with the SWOP Specifications.            Available as a free download from the NPES website at: <a href="http://www.npes.org/Standards/tools.html">http://www.npes.org/Standards/tools.html</a>. 45 pp.</p>	FREE Download

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	<b>CGATS/SWOP TR 005-2007</b> <b>Graphic technology – Color characterization data for SWOP® proofing and printing on U.S. Grade 5 coated publication paper</b> This Technical Report provides color characterization data for proofing and sheet or web offset printing of publication input materials on U.S. Grade 5 coated publication paper performed in accordance with the SWOP Specifications. Available as a free download from the NPES website: <a href="http://www.npes.org/Standards/tools.html">http://www.npes.org/Standards/tools.html</a> . 46 pp.	<i>FREE Download</i>
	<b>CGATS/GRACoL TR 006-2007</b> <b>Graphic technology – Color characterization data for GRACoL® proofing and printing on U.S. Grade 1 coated paper</b> This Technical Report provides color characterization data for proofing and for sheet-fed printing on U.S. Grade 1 papers containing significant amounts of optical brightening agents (OBA). Available as a free download from the NPES website: <a href="http://www.npes.org/Standards/tools.html">http://www.npes.org/Standards/tools.html</a> . 46 pp.	<i>FREE Download</i>
1200102	<b>CGATS TR 011 – 2002 (Reaffirmed 2010)</b> <b>Graphic technology - Package development workflow - Design concept through approved production file</b> This Technical Report describes a model, or reference, workflow for the packaging development process from the identification of a project through preparation of an approved production file. It defines the total set of information that needs to be addressed in a workflow, yet allows for variations based on individual needs. Intended for use as a reference in the creation of workflow procedures for specific organizations or products. 37 pp.	\$20
1200203	<b>CGATS TR 012 - 2003</b> <b>Graphic technology - Color reproduction and process control for packaging printing</b> This Technical Report outlines the steps necessary to understand and objectively define the color and tone reproduction capabilities (and limitations) of a printing process. These steps include optimization, fingerprinting, process control, and characterization, which provide the information required in the package development workflow defined in ANSI CGATS TR 011. This report also suggests steps that may be taken to control the printing processes to achieve consistent and predictable color. 28 pp.	\$20
1401204	<b>CGATS/ISO 12639:2004 (Reaffirmed 2008) (identical national adoption of ISO 12639:2004)</b> <b>Graphic technology - Prepress digital data exchange - Tag image file format for image technology (TIFF/IT)</b> This International Standard, which replaces ANSI IT8.8-1993, specifies a media-independent means for prepress electronic data exchange. It defines image file formats for encoding colour continuous tone picture images, colour line art images, high resolution continuous tone images, monochrome continuous tone images, binary picture images, binary line art images, screened data, and images of composite final pages. 82 pp.	\$75
1200507	<b>CGATS/ISO 12639:2004 / Amendment 1:2007 (identical national adoption of ISO 12639 Amd 1:2007)</b> This document amends CGATS/ISO 12639:2004. 6 pp.	\$16
1200207	<b>CGATS/ISO 12640-1:2007 (identical national adoption of ISO 12640-1:1997)</b> <b>Graphic technology - Prepress digital data exchange – Part 1: CMYK standard colour image data (CMYK/SCID)</b> This standard specifies the CMYK digital data that represents a set of standard colour images to be used for evaluation of changes in image quality during coding, image processing (including transformation, compression and decompression), film recording or printing which can be used for research, development, product evaluation and process control. Document and images available on CD-ROM or as a zip file. (See companion document ISO/TR 14672)	\$75
1200307	<b>CGATS/ISO 12640-2:2007 (identical national adoption of ISO 12640-1:2004)</b> <b>Graphic technology – Prepress digital data exchange – Part 2: XYZ/sRGB encoded standard colour image data (XYZ/SCID)</b> This standard specifies a set of 15 standard colour images (encoded as both 16-bit XYZ and 8-bit RGB digital data provided in electronic data files) that can be used for the evaluation of changes in image quality during coding, image processing (including transformation compression and decompression), displaying on a colour monitor or printing. They can be used for many graphic technology applications such as research, development, product evaluation, and process control. This package includes a 2008 corrigendum. Document and images available on 2 CD-ROMS or as a zip file.	\$75
1200407	<b>CGATS/ISO 12640-3:2007</b> <b>Graphic technology – Prepress digital data exchange – Part 3: CIELAB standard colour image data (CIELAB/SCID).</b> This identical national adoption of ISO 12640-3:2007 specifies a set of standard large gamut colour images (encoded as 16-bit CIELAB digital data) that can be used for the evaluation of changes in image quality during coding, image processing (including transformation, compression and decompression), displaying on a colour monitor and printing. These images can be used for research, testing and assessing of output systems such as printers, colour management systems and colour profiles.	\$75
1200308	<b>CGATS/ISO 12646:2008 (identical national adoption of ISO 12646:2008)</b> This standard specifies the minimum requirements for the characteristics of displays to be used for soft proofing of colour images. Included are requirements for uniformity, convergence, refresh rate, display, diagonal size, spatial resolution and glare of the screen surface. The dependence of colorimetric properties on the electrical drive signals and viewing direction, especially for flat panel displays, is also specified.	\$48
1200111	<b>CGATS/ISO 12646:2008 / Amendment 1:2010 (identical national adoption of ISO 12646:2008/Amd.1:2010)</b> This document amends CGATS/ISO 12646:2008. 2 pp.	\$16
1200405	<b>CGATS/ISO 15790:2005 (Reaffirmed 2007) (identical national adoption of ISO 15790:2004)</b> <b>Graphic technology and photography – Certified reference materials for reflection and transmission metrology – Documentation and procedures for use, including determination of combined uncertainty</b> This standard specifies the documentation requirements for certified reference materials (CRMs), procedures for the use of CRMs, and procedures for the computation and reporting of the combined standard uncertainty of reflectance and transmittance measurement systems used in graphic arts, photographic and other imaging industries. 25 pp.	\$35
1401304	<b>CGATS/ISO 15930-1:2004 (Reaffirmed 2006) (identical national adoption of ISO 15930-1:2001 (R2006))</b> <b>Graphic technology - Prepress digital data exchange - Use of PDF - Part 1: Complete exchange using CMYK data (PDF/X-1 and PDF/X-1a) (Supersedes CGATS.12/1 - 1999)</b> This part of 15930 specifies the methods for the use of the Portable Document Format (PDF) for the dissemination of compound CMYK digital data, in a single exchange, that is complete and ready for final print reproduction. 16 pp.	\$67

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
1401404	<b>CGATS/ISO 15930-3:2004 (Reaffirmed 2007) (identical national adoption of ISO 15930-3:2002)</b> <b>Graphic technology - Prepress digital data exchange - Use of PDF - Part 3: Complete exchange suitable for colour-managed workflows (PDF/X-3)</b> This part of ISO 15930 specifies the use of the Portable Document Format (PDF) for the dissemination of complete digital data, in a single exchange, that contains all elements necessary for final print reproduction. These exchanges will support both colour-managed workflows and traditional CMYK workflows. 17 pp.	\$63
1401504	<b>CGATS/ISO 15930-4:2004 (R2009) (identical national adoption of ISO 15930-4:2003)</b> <b>Graphic technology – Prepress digital data exchange using PDF – Part 4: Complete exchange of CMYK and spot colour printing data using PDF 1.4 (PDF/X-1a)</b> This part of ISO 15930 specifies the use of the Portable Document Format (PDF) Version 1.4 for the dissemination of complete digital data, in a single exchange, that contains all elements ready for final print reproduction. CMYK and spot-colour data are supported in any combination. 24 pp.	\$40
1401704	<b>CGATS/ISO 15930-6:2004 (R2009) (identical national adoption of ISO 15930-6:2003)</b> <b>Graphic technology – Prepress digital data exchange using PDF – Part 6: Complete exchange of printing data suitable for colour-managed workflows using PDF 1.4 (PDF/X-3)</b> This part of ISO 15930 specifies the use of the Portable Document Format (PDF) Version 1.4 for the dissemination of complete digital data, in a single exchange, that contains all elements necessary for final print reproduction. Colour-managed, CMYK, gray, RGB or spot colour data are supported. 24 pp.	\$63
1200110	<b>CGATS/ISO 15930-7:2010 (identical national adoption of ISO 15930-7:2010)</b> <b>Graphic technology – Prepress digital data exchange using PDF – Part 7: Complete exchange of printing data (PDF/X-4) and partial exchange of printing data with external profile reference (PDF/X-4p) using PDF 1.6</b> This part of CGATS/ISO 15930 specifies the use of the Portable Document Format (PDF) Version 1.6 for the dissemination of digital data intended for print reproduction. Where all elements necessary for final print reproduction are contained within the file it is designated as PDF/X-4. If a required ICC profile is externally supplied and unambiguously identified, it is designated as PDF/X-4p. 35 pp.	\$60
1200210	<b>CGATS/ISO 15930-8:2010 (identical national adoption of ISO 15930-8:2010)</b> <b>Graphic technology – Prepress digital data exchange using PDF – Part 8: Partial exchange of printing data using PDF 1.6 (PDF/X-5)</b> This part of CGATS/ISO 15930 specifies the use of the Portable Document Format (PDF) Version 1.6 for the dissemination of digital data intended for print, whereby all elements necessary for final print reproduction are either included or provision is made for unique identification of externally supplied graphical content or n-colorant ICC profiles. 23 pp.	\$40
1200109	<b>CGATS/AIIM/ISO 19005-1:2005</b> <b>Electronic document file format for long term preservation – Part 1: Use of PDF 1.4 (PDF/A-1)</b> This part of ANSI/CGATS/AIIM/ISO 19005 specifies how to use the Portable Document Format (PDF ) 1.4 for long-term preservation of electronic documents. It is applicable to documents containing combinations of character, raster and vector data. 31 pp.	\$92
<b>IT8 Standards</b>		
1300102	<b>IT8.6 – 2002 (Reaffirmed 2007)</b> <b>Graphic technology - Prepress digital data exchange - Diecutting data (DDES3)</b> This standard establishes a data exchange format to enable transfer of numerical control information between diecutting systems and between diecutting systems and electronic prepress systems. The information will typically consist of numerical control information used in the manufacture of dies. 37 pp.	\$20
1300793	<b>IT8.7/1 - 1993 (Reaffirmed 2008)</b> <b>Graphic technology - Color transmission target for input scanner calibration</b> This standard defines an input test target that will allow any color input scanner to be calibrated with any film dye set used to create the target. It is intended to address the color transparency products that are generally used for input to the preparatory process for printing and publishing. This standard defines the layout and colorimetric values of a target that can be manufactured on any positive color transparency film and that is intended for use in the calibration of a photographic film/scanner combination. 32 pp.	\$15
1300893	<b>IT8.7/2 - 1993 (Reaffirmed 2008)</b> <b>Graphic technology - Color reflection target for input scanner calibration</b> This standard defines an input test target that will allow any color input scanner to be calibrated with any film dye set used to create the target. It is intended to address the color photographic paper products that are generally used for input to the preparatory process for printing and publishing. It defines the layout and colorimetric values of the target that can be manufactured on any color photographic paper and is intended for use in the calibration of a photographic paper/scanner combination. 29 pp.	\$15
1300110	<b>IT8.7/3 - 2010</b> <b>Graphic technology - Input data for characterization of 4-color process printing</b> <b>PLEASE NOTE: The IT8.7/4 characterization target provides a more extensive data set than is provided by the IT8.7/3 target, CGATS recommends that the IT8.7/4 target be used rather than the IT8.7/3 target for all new work in characterization of 4-color printing.</b> This standard defines a data set of ink value combinations that may be used to characterize four-color process printing. Such characterization data may be created by rendering as images the ink values specified in this document and by measuring the printed sheet. This standard contains a smaller data set than the related IT8.7/4 standard. 20 pp. + data files in a zipped file.	\$25
1300205	<b>IT8.7/4 – 2005 (Reaffirmed 2010)</b> <b>Graphic technology – Input data for characterization of 4-color process printing – Expanded data set</b> This standard defines a data set of ink value combinations that may be used to characterize four-color process printing. This data set is not optimized for any printing process or application area, but is robust enough for all general applications. The needs of publication, commercial, and package printing with offset lithography, gravure, flexography, and other printing processes have been considered. While it is primarily aimed at process color printing with CMYK inks, it may also be used with any combination of three chromatic inks and a dark ink. It is seen as an alternate to the IT8.7/3 data set where more data is desired. 22 pp. + data files in a zipped file.	\$25

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<b>ISO Standards</b> <i>These publications are also available from ISO member bodies.</i>		
1400406	<b>ISO 2834-1:2006</b> <b>Graphic technology – Laboratory preparation of test prints – Part 1: Paste inks</b> This part of ISO 2834 specifies a laboratory method for the preparation of printed samples made with paste inks (such as inks used for lithographic and letterpress printing). Such printed samples are intended to be used for reflection based measurements, such as colorimetry and reflection density as well as for testing light fastness, and the resistance of printing inks to mechanical and chemical attack regarding either printing ink and/or substrate. 7 pp.	\$60
1400907	<b>ISO 2834-2:2007</b> <b>Graphic technology – Laboratory preparation of test prints – Part 2: Liquid printing inks</b> This part of ISO 2834 specifies a test method for preparation of test prints produced with liquid water-based or solvent-based printing inks as used in flexography and gravure printing. These test prints are intended primarily for optical tests, such as colorimetry, transparency and reflection density. They can also be used for testing gloss, light fastness and the chemical, physical and mechanical resistance to mechanical and chemical attack regarding either printing ink and/or substrate. Flexographic inks with higher viscosity, such as those cured by radiation are also covered. 8 pp.	\$60
1401308	<b>ISO 2834-3:2008</b> <b>Graphic technology – Laboratory preparation of test prints – Part 3: Screen printing inks</b> This part of ISO 2834 specifies a test method for preparation of test prints produced with screen printing inks. These test prints are intended primarily for optical tests, such as colorimetry, transparency and reflection density as describe din ISO 2846-4. They can also be used for testing gloss, light fastness and the chemical, physical and mechanical resistance to mechanical and chemical attack regarding either printing ink or substrate, or both. 7 pp.	\$60
1400504	<b>ISO 2836:2004</b> <b>Graphic technology - Prints and printing inks - Assessment of resistance to various agents</b> This International Standard specifies methods of assessing the resistance of printed materials to liquid and solid agents, solvents, varnishes, and acids. 14 pp.	\$60
1400906	<b>ISO 2846-1:2006</b> <b>Graphic technology - Colour and transparency of ink sets for four-colour-printing - Part 1: Sheet-fed and heat-set web offset lithographic printing</b> This part of ISO 2846 specifies the color and transparency characteristics that have to be met by each ink in a process color ink set intended for proof and production printing using offset lithography. The specified printing conditions, the defined substrate and a method for testing to ensure conformance are also defined. Characteristics are specified for inks used for sheet-fed, heat-set web and radiation-curing processes. 15 pp.	\$90
1401007	<b>ISO 2846-2:2007</b> <b>Graphic technology - Colour and transparency of ink sets for four-colour-printing - Part 2: Coldset offset lithographic printing</b> This part of ISO 2846 specifies the colour and transparency to be produced by inks intended for four-colour coldset web offset printing when printed under specified conditions on a printability tester. It also describes the test method to ensure conformance. It is no applicable to fluorescent inks and does not specify pigments (or spectral reflectance) so as not to preclude the use of future suitable pigment combinations and still claim compliance with its colorimetric requirements. 11 pp.	\$77
1400502	<b>ISO 2846-3:2002 (Reaffirmed 2007)</b> <b>Graphic technology - Colour and transparency of printing ink sets for four-colour-printing - Part 3: Publication gravure printing</b> This part of ISO 2846 specifies the colour and transparency to be produced by a process colour ink set including extender intended for four-colour publication gravure printing when printed under specified gravure printing conditions. It also specifies the test method to ensure conformance. This part of ISO 2846 does not specify pigments (or spectral reflectance) in order not to preclude developments which may enable different pigment combinations to be used advantageously while still achieving the colorimetric requirements specified in this part of ISO 2846. This part of ISO 2846 may also apply to certain non-publication gravure applications. 13 pp.	\$84
1400500	<b>ISO 2846-4:2000 (Reaffirmed 2005)</b> <b>Graphic technology - Colour and transparency of printing ink sets for four-colour-printing - Part 4: Screen printing</b> This part of ISO 2846 specifies the colour and transparency to be produced by a process colour ink set, including extender, intended for four-colour screen printing when printed under specified screen printing condition. It also describes the test method to ensure conformance. It is applicable to screen inks for conventional drying and radiation curing but does not specify pigments (or spectral reflectance) in order to preclude developments, which may enable different pigment combinations to be used advantageously while still achieving the colorimetric requirements specified in this part. 12 pp.	\$77
1400105	<b>ISO 2846-5:2005</b> <b>Graphic technology - Colour and transparency of printing ink sets for four-colour printing - Part 5: Flexographic printing</b> This part of ISO 2846 specifies the colour and transparency to be produced by each ink in a process colour ink set (including extender) intended for four-colour flexographic printing, when printed under specified flexographic printing conditions. It also describes the conformance test method. 20pp.	\$84
1400609	<b>ISO 3664:2009</b> <b>Graphic technology and photography – Viewing conditions</b> This International Standard specifies viewing conditions for images on both reflective and transmissive media, such as prints (both photographic and photomechanical) and transparencies, as well as images displayed in isolation on colour monitors. This applies in particular to: critical comparison between transparencies, reflection photographic or photomechanical prints and/or other objects or images; appraisal of the tone reproduction and colourfulness of prints; critical appraisal of transparencies; and appraisal of images on colour monitors. This International Standard is not applicable to unprinted papers. 44 pp.	\$135

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1400183	<p><b>ISO 5776:1983</b>  <b>Graphic technology - Symbols for text correction (Currently under revision)</b>  This International Standard specifies symbols for use in copy preparation and proof correction. It is applicable to texts submitted for corrections whatever their nature or their presentation, and for marking-up copy for all methods of composition. Symbols of the correction of mathematical texts and colour illustrations are not included nor does this standard apply to symbols used in certain fields of activity in graphic arts, i.e. photo-engraving plants, where additional symbols relevant to a specific field may be used. 4 pp.</p>	\$45
1403893	<p><b>ISO 11084-1:1993 (Reaffirmed 2003)</b>  <b>Graphic technology - Register systems for photographic materials, foils and paper - Part 1: Three-pin systems</b> This International Standard specifies the positions and dimensions for the pins and holes of three-pin register systems to achieve accurate positioning of originals, separations and printing plates on press and prepress equipment. 3 pp.</p>	\$45
1400506	<p><b>ISO 11084-2:2006</b>  <b>Graphic technology - Register systems for photographic materials, foils and paper – Part 2: Register pin systems for plate making</b>  This International Standard specifies the shapes, dimensions and positions for the pins and holes of a register system used to achieve accurate image positioning on a printing plate during the plate-making operations undertaken during the printing plate preparation process. It is also applicable to plate-bending equipment and transfer systems required to convert between register pin systems.</p>	\$45
1400497	<p><b>ISO 12040:1997 (Reaffirmed 2003)</b>  <b>Graphic technology - Prints and printing inks-Assessment of light fastness using filtered xenon arc light</b> This International Standard specifies a method for assessing the light fastness of prints and printing inks, by giving the general test requirements for prints and the special test requirements for inks. This standard applies to all print substrates such as paper, board, metals (thin metal sheets and plate) and plastic films and to all printing processes. 5 pp.</p>	\$51
1400797	<p><b>ISO 12218:1997 (Reaffirmed 2003)</b>  <b>Graphic technology - Process control -Offset platemaking</b>  This International Standard establishes unified terminology, test methods and requirements for the process control of the preparation of the offset printing form. It applies to pre-sensitized metal plates and contact exposures. It does not apply to optical projection or direct writing techniques, or to non-periodic half-tone screens, although the principles may be applied by analogy. 16 pp.</p>	\$90
1400896	<p><b>ISO 12634:1996 (Reaffirmed 2006)</b>  <b>Graphic technology - Determination of tack of paste inks and vehicles by a rotary tackmeter</b>  This International Standard specifies the use of a rotary tackmeter to determine the tack value of paste inks and vehicles which have low volatility and are unreactive under ordinary room conditions during the time span required for testing. 3 pp.</p>	\$45
1401108	<p><b>ISO 12635:2008</b>  <b>Graphic technology - Plates for offset printing – Dimensions</b>  This International Standard specifies the width, length, and thickness of metal lithographic printing plates (referred to hereafter as "plates"). For plates to be used in computer to plate (CIP) applications, flatness, edge straightness and burr requirements are also included. These requirements are applicable to unprocessed plates. 11 pp.</p>	\$77
1401098	<p><b>ISO 12636:1998 (Reaffirmed 2003)</b>  <b>Graphic technology - Blankets for offset printing</b>  This International Standards defines vocabulary, and specifies test methods, characteristics, ordering and labeling information for blankets for offset printing. It does not apply to untensioned or unclamped offset blankets, nor offset printing sleeves used with gapless presses. 8 pp.</p>	\$60
1400106	<p><b>ISO 12637-1:2006</b>  <b>Graphic technology – Vocabulary – Part 1: Fundamental terms</b>  This part of ISO 12637 defines a set of fundamental terms that can be used in the drafting of other International Standards for graphic technology. 9 pp.</p>	\$69
1401208	<p><b>ISO 12637-2:2008</b>  <b>Graphic technology – Vocabulary – Part 2: Prepress terms</b>  This part of ISO 12637 defines a set of prepress terms which may be used in the drafting of other International Standards for graphic technology. In order to facilitate their translation into other languages, the definitions are worded so as to avoid, where possible any peculiarity attached to one language. 15 pp.</p>	\$90
1400509	<p><b>ISO 12637-3:2009</b>  <b>Graphic technology – Vocabulary – Part 3: Printing terms</b>  This part of ISO 12637 defines terms for printing systems and processes. 24 pp.</p>	\$103
1400608	<p><b>ISO 12637-4:2008</b>  <b>Graphic technology – Vocabulary – Part 4: Postpress terms</b>  This part of ISO 12637 defines a set of postpress terms which may be used in the drafting of other International Standards for graphic technology.</p>	\$51
1401310	<p><b>ISO 12639:2004 and Amendment 1</b>  See CGATS/ISO 12639:2004 (an identical national adoption)</p>	\$188
1401410	<p><b>ISO 12640-1:1997(Reaffirmed 2003)</b>  See CGATS/ISO 12640-1:2007 (an identical national adoption)</p>	\$188
1401510	<p><b>ISO 12640-2:2004</b>  See CGATS/ISO 12640-2:2007 (an identical national adoption)</p>	\$116
1401610	<p><b>ISO 12640-3:2007</b>  See CGATS/ISO 12640-3:2007 (an identical national adoption)</p>	\$135
1401497	<p><b>ISO 12641:1997 (Reaffirmed 2003)</b>  <b>Graphic technology – Prepress digital data exchange – Colour targets for input scanner calibration</b>  Encompassing the content of ANSI IT8.7/1-1993 and ANSI IT8.7/2-1993, this International Standard defines the layout and colorimetric values of targets for use in the calibration of a photographic product/scanner combination. One target is defined for positive color transparency film and another is defined for colour photographic paper. 20 pp.</p>	\$103

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1401597	<b>ISO 12642-1:1996 (Reaffirmed 2001)</b> <b>Graphic technology - Prepress digital data exchange - Input data for characterization of 4-colour process printing – Part 1: Initial data set</b> This International Standard defines an input data file, a measurement procedure and an output data format for use in characterizing any four-color print process. The technical content is identical to ANSI IT8.7/3-1993. 20 pp.	\$103
1401106	<b>ISO 12642-2:2006</b> <b>Graphic technology – Input data for characterization of 4-colour process printing – Part 2: Expanded data set</b> This part of ISO 12642 defines a data set of ink value combinations that are intended to be used to characterize 4-color process printing. It is not optimized for any printing process or application area, but is robust enough for all general applications. It is an alternative to the ISO 12642-1 data set when more robust data is required. It is technical equivalent to ANSI IT8.7/4-2005. Zipped file containing 29 pp document + several data files.	\$122
1401696	<b>ISO 12644:1996 (Reaffirmed 2006)</b> <b>Graphic technology - Determination of rheological properties of paste inks and vehicles by the falling rod viscometer</b> This International Standard specifies the use of a falling rod viscometer to determine the viscosity and yield value of paste inks and vehicles which are unreactive under ordinary room conditions. 12 pp.	\$77
1401798	<b>ISO 12645:1998 (Reaffirmed 2003)</b> <b>Graphic technology - Process control- Certified reference material for opaque area calibration of transmission densitometers</b> This International Standard defines requirements for a half-tone certified reference material, which may be used for the opaque area percentage calibration of transmission densitometers of colorimeters for use in the graphic arts. 10 pp.	\$69
1401710	<b>ISO 12646: 2008</b> See CGATS/ISO 12646:2008 (an identical national adoption)	\$96
1401210	<b>ISO 12646:2008/Amd1:2010</b> See CGATS/ISO 12646:2008/Amd1:2010 (an identical national adoption)	\$17
1400804	<b>ISO 12647-1:2004 (Reaffirmed 2007)</b> <b>Graphic technology - Process control for the manufacture of half-tone colour separations, proof and production prints - Part 1: Parameters and measurement methods</b> This and other parts of ISO 12647 specify parameters that define printing conditions for the various processes used in the graphic arts industry. 28 pp.	\$109
1400904	<b>ISO 12647-2:2004 (Reaffirmed 2007)</b> <b>Graphic technology - Process control for the manufacture of half-tone colour separations, proof and production prints - Part 2: Offset lithographic processes</b> This International Standard specifies a number of process parameters and their values to be applied when preparing color separations for four-color offset printing, or when producing four-color prints by one of the following methods: heat-set web, sheet-fed or continuous forms process printing, or proofing for these processes; offset proofing for half-tone gravure. 26 pp.	\$103
1400407	<b>ISO 12647-2:2004/Amd1:2007</b> <b>Graphic technology - Process control for the manufacture of half-tone colour separations, proof and production prints - Part 1: Parameters and measurement methods – Amendment 1</b> This standard amends several technical requirements of ISO 12647-2:2004.	\$17
1400505	<b>ISO 12647-3:2005</b> <b>Graphic technology - Process control for the manufacture of half-tone colour separations, proofs and production prints - Part 3: Coldset offset lithography on newsprint</b> This part of ISO 12647 specifies a number of process parameters and their values to be applied when preparing colour separations for newspaper single or four-colour printing and proofing. The parameters and values are chosen in consideration of the complete process, covering the process stages: "colour separation", "film setting", "making of the printing forme", "proof production" and "production printing". 15 pp.	\$90
1400605	<b>ISO 12647-4:2005</b> <b>Graphic technology – Process control for the manufacture of half-tone colour separations, proofs and production prints – Part 4: Publication gravure printing</b> This part of ISO 12647 specifies a number of process parameters and their values to be applied to four-colour publication gravure printing. The parameters and values are chose in view of the complete process covering the process stages "colour separation", "making of the printing forme", "proof production" and "production printing".	\$84
1400801	<b>ISO 12647-5:2001(Reaffirmed 2006)</b> <b>Graphic technology - Process control for the manufacture of half-tone colour separations, proofs and production prints - Part 5: Screen printing</b> This part of ISO 12647 specifies a number of process parameters and their values to be applied when preparing colour separations for four-colour screen process printing when producing four-colour proof & production prints by flat bed or cylinder screen printing. 10 pp.	\$69
1400206	<b>ISO 12647-6:2006</b> <b>Graphic technology – Process control for the production of half-tone colour separations, proofs and production prints – Part 6: Flexographic printing</b> This part of ISO 12647 specifies a number of process parameters and their values to be applied to four-colour process printing by the flexographic printing process for packaging and publication, excluding newsprinting.	\$69
1401107	<b>ISO 12647-7:2007</b> <b>Graphic technology – Process control for the production of half-tone colour separations, proofs and production prints – Part 7: Proofing processes working directly from digital data</b> This part of ISO 12647 specifies requirements for systems that are used to produce hard-copy digital proof prints intended to simulate a printing condition defined by a set of characterization data. Recommendations are provided with regard to appropriate test methods associated with these requirements. In addition, guidance with respect to the certification of proofing systems related to specific printing condition aims is also included. 20 pp.	\$103
1401810	<b>ISO 13655:2009</b> CGATS.5 - 2009 (an identical national adoption)	\$141

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
1400100	<b>ISO 13656:2000 (Reaffirmed 2005)</b> <b>Graphic technology - Application of reflection densitometry and colorimetry to process control or evaluation of prints and proofs</b> This International Standard applies to process control and evaluation of single and multi-colour proofing and printing in the graphic arts using densitometry and colorimetry. This standard: defines terms; specifies minimum requirements for control strips; specifies test methods; and specifies reporting procedures for the results. 15 pp.	\$90
1400400	<b>ISO/TR 14672:2000</b> <b>Graphic technology - Statistics of the natural SCID images defined in ISO 12640</b> This Technical Report provides the colour and spatial frequency distribution statistics associated with digital image data of International Standard 12640, <i>Graphic technology - Prepress digital data exchange - CMYK standard colour image data (CMYK/SCID)</i> . 63 pp.	\$176
1402610	<b>ISO 15076-1:2010</b> <b>Image technology colour management – Architecture, profile format and data structure – Part 1: Based on ICC.1:2010</b> This part of ISO 15076 specifies a colour profile format and describes the architecture within which it can operate. This architecture supports the exchange of information which specifies the intended colour image processing of digital data. The required reference colour spaces and the data structures (tags) are also specified. 130 pp.	\$216
1401910	<b>ISO 15790:2004</b> See CGATS/ISO 15790:2005 (an identical national adoption)	\$103
1402010	<b>ISO 15930-1:2001 (Reaffirmed 2006)</b> See CGATS/ ISO 15930-1:2004 (R2006) (an identical national adoption)	\$96
1402110	<b>ISO 15930-3:2002</b> See CGATS/ISO 15930-3:2004 (an identical national adoption)	\$90
1402210	<b>ISO 15930-4:2003</b> See CGATS/ISO 15930-4:2004 (an identical national adoption)	\$90
1402310	<b>ISO 15930-5:2003</b> See CGATS/ISO 15930-5:2004 (an identical national adoption)	\$77
1402410	<b>ISO 15930-6:2003</b> See CGATS/ISO 15930-6:2004 (an identical national adoption)	\$90
1401010	<b>ISO 15930-7:2010</b> See CGATS/ISO 15930-7:2010 (an identical national adoption)	\$122
1401110	<b>ISO 15930-8:2010</b> See CGATS/ISO 15930-8:2010 (an identical national adoption)	\$84
1400604	<b>ISO/TR 16044:2004</b> <b>Graphic technology – Database architecture model and control parameter coding for process control and workflow (Database AMPAC)</b> This Technical Report specifies a basic standard architecture model and parameters used in a database for printing-process control and workflow description. It defines how all of the parameters impacting a manufacturing system are classified by using a layer structure. The upper two layers categorize the systems and system elements and set the structure for the process. The following third and fourth layers characterize all details of the parameters used in the printing system, including standard coding rules. 22 pp. Win Zip Copy Only	\$90
1400103	<b>ISO/TR 16066:2003</b> <b>Graphic technology – Standard object colour spectra database for colour reproduction evaluation (SOCS)</b> This Technical Report provides a database of typical and difference sets of existing object colour spectral data that are suitable for evaluating the colour reproduction of image input devices. It also includes the spectral reflectance and transmittance source data from which these data sets have been derived. Zipped file (20,332 KB), containing PDF file and additional zipped file. Unzipping program required to access report. Available on CD or as a download (a URL will be provided.)	\$165
1400705	<b>ISO 16612-1:2005</b> <b>Graphic technology – Variable printing data exchange – Part 1: Using PPML 2.1 and PDF 1.4 (PPML/VDX-2005)</b> This part of ISO 16612 specifies the methods for the use of the Personalized Print Markup Language (PPML) and the Portable Document Format (PDF) for the exchange or identification of all elements necessary to render a variable data imaging job as intended by the sender. This part of ISO 16612 specifies document layout and content data and makes provision for product intent specifications using the Job Definition Format (e.g. paper selection, binding, finishing, etc.). 31 pp.	\$129
1400810	<b>ISO 16612-2:2010</b> <b>Graphic technology – Variable data exchange – Part 2: Using PDF/X-4 and PDF/X-5 (PDF/VT-1 and PDF/VT-2)</b> This part of ISO 16612 defines the PDF/VT document format and methods to enable reliable document exchange for variable data and transactional (VT) printing. It uses the Portable Document Format (PDF) Version 1.6, as restricted by PDF/X-4 and PDF/X-5, for the representation of such documents. It allows the specification of document structure and layout, content data, and interaction of graphical objects in a graphics model that supports transparency and both device-dependent and device-independent colour spaces. All elements are either included or provision is made for unique identification of externally supplied graphical content or ICC profiles. 44 pp.	\$141
1402510	<b>ISO 19005-1:2005</b> See CGATS/AIIM/ISO 19005-1:2005 (an identical national adoption)	\$122
1400405	<b>ISO 22028-1:2004</b> <b>Photography and graphic technology – Extended colour encodings for digital image storage, manipulation and interchange – Part 1: Architecture and requirements</b> This part of ISO 22028 specifies a set of requirements to be met by any extended-gamut colour encoding that is to be used for digital photography and/or graphic technology applications involving digital image storage, manipulation and/or interchange. It is applicable to pictorial digital images that originate from an original scene, as well as digital images with content such as text, line art, vector graphics and other forms of original artwork. It also describes a reference image-state-based digital imaging architecture, encompassing many common workflows, that can be used to classify extended colour encodings into a number of different image states, but does not specify any particular workflow(s) that are to be used for digital photography and/or graphic technology applications. 47 pp	\$156

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
1400612	<b>ISO/TS 10128:2009</b> <b>Graphic technology – Methods of adjustment of the colour reproduction of a printing system to match a set of characterization data</b> This Technical Specification specifies methods for the adjustment of the digital content data that is input to a printing system to achieve consistency in the printed results among a number of presses printing to the same general aim conditions. 12 pp.	\$77
1400108	<b>ISO/TS 22028-2:2006</b> <b>Photography and graphic technology – Extended colour encodings for digital image storage, manipulation and interchange – Part 2: Reference output medium metric RGB colour image encoding (ROMM RGB)</b> This Technical Specification defines a family of extended colour-gamut output-referred RGB colour image encodings designated as Reference output medium metric RGB (ROMM RGB). Digital images encoded using ROMM RGB can be manipulated, stored, transmitted, displayed, or printed by digital still picture imaging systems. Three precision levels are defined using 8-, 12- and 16-bits/channel. 17 pp.	\$96
1400208	<b>ISO/TS 22028-3:2006</b> <b>Photography and graphic technology – Extended colour encodings for digital image storage, manipulation and interchange – Part 3: Reference input medium metric RGB colour image encoding (RIMM RGB)</b> This part of ISO 22028 specifies a family of scene-referred extended colour gamut RGB colour image encodings designated as Reference input medium metric RGB (RIMM RGB). Digital images encoded using RIMM RGB can be manipulated, stored, transmitted, displayed, or printed by digital still picture imaging systems. Three precision levels are defined using 8-, 12- and 16-bits/channel. An extended luminance dynamic range version of RIMM RGB is also defined designated as Extended reference input medium metric RGB (ERIMM RGB). Two precision levels of ERIMM RGB are defined using 12- and 16-bits/channel. 18 pp.	\$96
1400409	<b>ISO 28178:2009</b> <b>Graphic technology – Exchange format for colour and process control data using XML or ASCII text</b> This International Standard defines an exchange format for colour and process control data (and the associated metadata necessary for its proper interpretation) in electronic form using either XML or ASCII formatted data files. It maintains human readability of the data as well as enabling machine readability. It includes a series of predefined tags and keywords, and provides extensibility through provision for the dynamic definition of additional tags and keywords as necessary. It is focused primarily on spectral measurement data, colorimetric data, and densitometric data. 36 pp.	\$141
1400309	<b>ISO 32000-1:2008</b> <b>Document management – Portable document format – Part 1: PDF 1.7</b> This International Standard specified a digital form for representing electronic documents to enable users to exchange and view electronic documents independent of the environment in which they were created or the environment in which they are viewed or printed. It is intended for the developer or software that creates PDF files (conforming writers), software that reads existing PDF files and interprets their contents for display and interaction (conforming readers) and PDF products that read and/or write PDF files for a variety of other purposes (conforming products). 747 pp.	\$396
1401207	<b>ISO/IEC Guide 99:2007</b> <b>International vocabulary of metrology -- Basic and general concepts and associated terms (VIM)</b> This Vocabulary contains a set of definitions and associated terms for a system of general concepts used in metrology along with concept diagrams to demonstrate their relations. Examples and notes are included with many definitions. It can be used as a reference for scientists and engineers (physicists, chemists, medical scientists) as well as teachers and practitioners as they plan or perform measurements. Also useful for governmental and inter-governmental bodies, trade associations, accreditation bodies, regulators and professional societies. This Vocabulary is intended to promote global harmonization of terminology used in metrology. English/French. 92 pp.	\$202
	<b>IEC Standards</b> <i>(These publications are also available from ISO/IEC member bodies)</i>	
1500287	<b>IEC 60050-845:1987, Ed. 1.0 (CIE Publication 17.4) [formerly IEC 50(845)]</b> <b>International Electromagnetic Vocabulary-Chapter 845: Lighting</b> This standard includes 950 terms and definitions to facilitate international standardization in the use of quantities, units, symbols and terminology in this field. English/French/Russian. 369 pp.	\$295
1500399	<b>IEC 61966-2-1:1999, Ed. 1.0</b> <b>Multimedia systems and equipment – Colour measurement and management – Part 2-1: Colour management – Default RGB colour space – sRGB</b> This part of IEC 61966 is applicable to the encoding and communication of RGB colours used in computer systems and similar applications by defining encoding transformations for use in defined reference conditions. If actual conditions differ from the reference conditions, additional rendering transformations may be required. Such additional rendering transformations are beyond the scope of this standard. 51 pp.	\$132
1500110	<b>IEC/TR 61491:2010 Ed. 1.0</b> <b>Electrical equipment of industrial machines – Serial data link for real-time communication between controls and drive</b> This technical report presents an overview and guidance for IEC 61158, IEC 61784-1, IEC 61784-2 and IEC 61800-7 with respect to a real-time serial interface between the control unit and its associated devices, which is utilized to transmit periodic and non-periodic data. This interface is intended to apply to industrial machines, such as machine tools, with multiple devices connected via this interface. This interface supports different operation modes. 22 pp.	\$47
1501003	<b>IEC 61966-2-1, Amd1, Ed. 1.0:2003</b> <b>Multimedia systems and equipment – Colour measurement and management – Part 2-1: Colour management – Default RGB colour space – sRGB, Amendment 1</b> This Amendment adds Annex F (normative) Default YCC encoding transformation for a standard luma-chromachroma colour space: sYCC; Annex G (informative) Extended gamut encoding for sRGB: bg-sRGB and its YCC transformation: bg-sYCC; and Annex H (informative) CIELAB (L*a*b*) transformation to the 1999 standard. 14 pp.	\$79

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
1500800	<p><b>IEC 61966-3:2000, Ed. 1.0</b>  <b>Multimedia systems and equipment – Colour measurement and management – Part 3: Equipment using cathode ray tubes</b>  This part of IEC 61966 deals with equipment using cathode ray tubes (CRT) to display colour images for use in multimedia applications, for the purpose of colour management in multimedia systems. The methods of measurement standardized are designed to make possible the objective performance assessment and characterization of colour reproduction of CRT displays which accept red – green – blue analogue or digital signals from electrical input terminals and output colour images on CRT display screens. It defines input test signals, measurement conditions and methods of measurement, so as to make possible the colour management and comprehensive comparison of the results of measurements. It does not specify limiting values for various parameters or colour control within equipment. English/French. 69 pp.</p>	\$147
1500900	<p><b>IEC 61966-4:2000, Ed. 1.0</b>  <b>Multimedia systems and equipment – Colour measurement and management – Part 4: Equipment using liquid crystal display panels</b>  This part of IEC 61966 defines input test signals, measurement conditions and methods of measurement, so as to make possible the colour management and comprehensive comparison of the results of measurements, for the purpose of colour management in multimedia systems. It deals with equipment using transmissive-type liquid crystal display (LCD) panels to display colour images for use in multimedia applications. The methods of measurement are designed to make possible the objective performance assessment and characterization of colour reproduction of LCDs which accept red – green – blue analogue or digital signals from electrical input terminals and output colour images on LCD screens. It does not cover colour control within equipment nor does it specify limiting values for various parameters. English/French. 75 pp.</p>	\$163
1500109	<p><b>IEC 61966-5:2008, Ed. 2.0</b>  <b>Multimedia systems and equipment – Colour measurement and management – Part 5: Equipment using plasma display panels</b>  This part of IEC 61966 defines input test signals, measurement conditions, methods of measurement and reporting of the measured data, to be used for colour characterization and colour management of plasma display panels in multimedia systems. Colour control within equipment is outside the scope of this International Standard. It does not specify limiting values for various parameters. . English 33 pp.</p>	\$147
1500206	<p><b>IEC 61966-7-1:2006, Ed. 2.0</b>  <b>Multimedia systems and equipment - Colour measurement and management - Part 7-1: Colour printers - Reflective prints - RGB inputs</b>  This part of IEC 61966 specifies a set of data in colour test chart files for measurements, sampling of successive prints, measurement conditions and forms of reporting the results so as to make possible the characterization of the colour printer and comparison of the results of measurements. The sets of data for measurements are in colour test chart files expressed in a red–green–blue colour space, to which corresponding colour images are reproduced on reflective substrate. The methods of measurement in this standard are designed to be applicable to reflective colour prints for consumer use. 42 pp.</p>	\$184
1500501	<p><b>IEC 61966-8:2001, Ed. 1.0</b>  <b>Multimedia systems and equipment - Colour measurement and management - Part 8: Multimedia colour scanners</b> This part of IEC 61966 is applicable to the characterization and assessment of multimedia colour scanners used in computer systems, multimedia and similar applications, for the purpose of colour management in multimedia systems. The methods of measurement standardized in this part are designed to make possible the characterization and objective performance assessment of multimedia colour scanners which can capture colour images and output colour information such as red - green - blue data from reflective originals. The measured results are intended to be used. Measurement conditions, possible methods of measurement and characterization are defined to make colour management possible. It does not cover colour control within the equipment; for calibration of prepress input scanners, ISO 12641 will be applied. 38 pp.</p>	\$163
1500603	<p><b>IEC 61966-9:2003, Ed. 2.0</b>  <b>Multimedia systems and equipment - Colour measurement and management - Part 9: Digital cameras</b>  This part of IEC 61966 is applicable to the assessment of colour reproduction of digital cameras used in open computer systems and similar applications, for the purpose of colour management in multimedia systems, typically in the Internet. It defines test charts, measurement conditions and methods of measurement, so as to make possible the colour management in open multimedia systems and comprehensive comparison of the results of measurements for assessment of digital cameras. The methods of measurement standardized in this part are designed to make possible the objective performance assessment and characterization of colour reproduction of digital cameras which can capture colour still and moving images, and output colour information corresponding to red - green - blue digital image data. It does not cover colour control within digital cameras nor does it specify limiting values for various parameters. English/French. 38 pp.</p>	\$147