

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
CGATS Standards		
1200121	<p>CGATS.4 – 2022 Graphic technology - Graphic arts reflection densitometry measurements - Terminology, equations, image elements and procedures This standard defines terms, equations and procedures for measurement, use, and communication of data obtained using reflection densitometry in the graphic arts. It also applies to measurement of materials produced by systems such as photographic, ink jet, thermal transfer, electrophotographic, and toner technology (including off-press proofs), etc., when used for graphic arts applications. 17 pp.</p>	\$16
1200309	<p>CGATS.5 – 2018 (identical national adoption of ISO 13655:2017) Graphic technology - Spectral measurement and colorimetric computation for graphic arts images 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>	\$55
1200119	<p>CGATS.9 - 2019 Graphic technology - Graphic arts transmission densitometry measurements - Terminology, equations, image elements and procedures 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>	\$16
1200209	<p>CGATS.17 - 2009 (identical national adoption of ISO 28178:2009) Graphic technology - Exchange format for color and process control data using XML or ASCII text 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>	\$55
1200113	<p>CGATS 21-1-2013(R2021) Graphic technology — Printing from digital data across multiple technologies — Part 1: Principles This part of CGATS 21 establishes principles for the use of color characterization data as the definition of the intended relationship between input data and printed color for copy preparation, job assembly, proofing, and graphic arts production printing. Additional Parts of CGATS 21 specify a limited number of characterized reference printing conditions that span the expected range of color gamuts used for the production of printed material from digital data, regardless of printing process used. The procedure to be used to adjust color characterization data for the normally expected range of substrate color is specified. 17 pp.</p>	\$22
1200213	<p>CGATS 21-2-2021 Graphic technology — Printing from digital data across multiple technologies — Part 2: Characterized reference printing conditions 2013 This part of CGATS specifies a limited number of characterized reference printing conditions that span the expected range of color gamuts used for the production of printed material from digital data, regardless of printing process used. This document comes as a zip file which includes CRPC data files. 17 pp.</p>	\$22
1200313	<p>CGATS 21-1 and CGATS 21-2 Graphic technology — Printing from digital data across multiple technologies</p> <ul style="list-style-type: none"> • Part 1: Principles • Part 2: Characterized reference printing conditions 2013 <p>Both parts of CGATS 21 are bundled together on CD for a reduced price.</p>	\$40

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
1200222	<p>CGATS.22:2022 Graphic technology — Spectral reflection metrology — Certified reference materials — Documentation and procedures for use, including determination of combined standard uncertainty This document specifies the documentation requirements for certified reference materials (CRMs), the procedures for the use of CRMs, and the procedures for the computation and reporting of combined standard uncertainty, as applicable to the calibration, standardization, performance characterization and verification, and routine use of instruments for the measurements of spectral reflectance, transmittance and radiance as used in the graphic arts, photographic, and other image reproduction processes. Applicable measurement systems include, but are not restricted to, spectrodensitometers, spectroradiometers, spectrophotometers and spectroradiometers.</p> <p>This document references and draws upon the appropriate CIE, ISO and IEC guides in developing requirements and procedures specific to the needs of the graphic arts and other image reproduction processes. This document is not applicable to measurement results that do not follow a statistically Normal distribution, but some provisions may be applied by analogy. Nor is the document applicable to instrumentation for the measurement of regular reflection (gloss, haze, DOI) or for the measurement of spectral regular transmission (solution spectrophotometry). 41 pp.</p>	\$60
1200117	<p>CGATS TR 001 - 1995 + Supplement 1 (R2016) Graphic technology - Color characterization data for Type 1 printing (Technical Report Only) This report provides public access to, and a reference source for, colorimetric characterization data describing offset lithographic printing meeting the requirements of ANSI/CGATS.6-1995, Graphic technology — Specifications for graphic arts printing — Type 1. The input test data is as defined in ANSI/IT8.7/3-1993, Graphic technology — Input data for characterization of 4-color process printing, and all measurements are in accordance with ANSI/CGATS.5-1993, Graphic technology — Spectral measurement and colorimetric computation for graphic arts images. Because the data contained in this report is based on the measurement of press sheets produced by practical printing, the data itself cannot be normative. However, it provides the best estimate of the characterization of this class of printing, and as such it is an important reference. It is expected that the use of this reference data will be a requirement of many printing application programs.</p> <p>NOTE 1: CGATS TR001 characterization data is based on the SWOP printing aims as they existed in 1993. While these data are still valid, and are used to describe the CMYK to color relationship of many CMYK data files, for newer work they have been superseded by CGATS TR003 and CGATS TR005. These newer data sets represent SWOP proofing and printing on U.S. Grade 3 and Grade 5 coated publication paper respectively.</p> <p>NOTE 2: TR001 contains colorimetric characterization data describing offset lithographic printing meeting the requirements of the now withdrawn CGATS.6. It is now provided for historical traceability of standardized publication printing. For values and guidance for current publication printing aims please refer to CGATS.21 series or the ISO equivalent, ISO/PAS 15339.</p>	\$20
1201195	<p>CGATS TR 001 Data Graphic technology - Digital Data for CGATS TR 001 - 1995 (R2003) (Data Only) 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
1200217	<p>CGATS TR 001 – 1995 (R2016) (Bundle) Set Includes the Technical Report TR 001 (including Supplement 1) and related data at a package price.</p>	\$30
1200114	<p>CGATS/SNAP TR 002-2017 Graphic technology – Color characterization data for coldset printing on newsprint This Technical Report provides color characterization data for coldset printing on newsprint performed in accordance with the SNAP Specifications. Available as a free download from the APTEch website at: https://printtechnologies.org/programs/standards-workroom/tools-best-practices/technical-reports/ 32 pp.</p>	FREE Download
1200214	<p>CGATS/SWOP TR 003-2016(2023) Graphic technology – Color characterization data for SWOP® proofing and printing on U.S. Grade 3 coated publication paper 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 APTEch website at: https://printtechnologies.org/programs/standards-workroom/tools-best-practices/technical-reports/ 45 pp.</p>	FREE Download
1200314	<p>CGATS/SWOP TR 005-2017(2023) Graphic technology – Color characterization data for SWOP® proofing and printing on U.S. Grade 5 coated publication paper 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 APTEch website at: https://printtechnologies.org/programs/standards-workroom/tools-best-practices/technical-reports/ 46 pp.</p>	FREE Download

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1200414	CGATS/GRACoL TR 006-2017(R2023) Graphic technology – Color characterization data for GRACoL® proofing and printing on U.S. Grade 1 coated paper 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 APTech website at: https://printtechnologies.org/programs/standards-workroom/tools-best-practices/technical-reports/ 46 pp.	FREE Download
1200102	CGATS TR 011 – 2002(R2018) Graphic technology - Package development workflow - Design concept through approved production file 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
1200220	CGATS TR 012- 2020 Graphic technology — Color reproduction and process control for packaging printing 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, characterization, and process improvement which provide the information required in the package development workflow defined in CGATS TR 011 by aligning to characterization data in CGATS 21 or other embedded characterization data. This report also suggests steps that may be taken to control the printing processes to achieve consistent and predictable color. 33 pp.	\$20
1200514	CGATS TR 015 – 2013 Graphic technology – Methodology for Establishing Printing Aims Based on a Shared Near-neutral Gray-scale This Technical Report defines a methodology for establishing individual printing tone reproduction and near-neutral gray-scale aims, and families thereof, based on a shared near-neutral gray-scale definition. This methodology can be used to establish such aims for any CMYK printing system regardless of the printing process used or gamut involved. Available as a free download from the APTech website at: https://printtechnologies.org/programs/standards-workroom/tools-best-practices/technical-reports/ 12 pp.	FREE Download
1200614	CGATS TR 016 – 2014 Graphic technology - Printing Tolerance and Conformity Assessment This technical report defines a process that can be used in evaluating the conformance of printed material to a set of reference color characterization data, which are used as the intended printing aim. It also provides a conformance assessment procedure which includes evaluation of deviation, within-sheet variation, and production variation as well as a four-level tolerance schema for the combination of the weighted results into a single rank. Available as a free download from the APTech website at: https://printtechnologies.org/programs/standards-workroom/tools-best-practices/technical-reports/ 10 pp.	FREE Download
1401204	CGATS/ISO 12639:2004(R2019) (identical national adoption of ISO 12639:2004) Graphic technology - Prepress digital data exchange - Tag image file format for image technology (TIFF/IT) 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.	\$80
1200507	CGATS/ISO 12639:2004 / Amendment 1:2007 (identical national adoption of ISO 12639 Amd 1:2007) This document amends CGATS/ISO 12639:2004. 6 pp.	\$17
1200207	CGATS/ISO 12640-1:2007 (identical national adoption of ISO 12640-1:1997) Graphic technology - Prepress digital data exchange – Part 1: CMYK standard colour image data (CMYK/SCID) 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)	\$80
1200307	CGATS/ISO 12640-2:2007 (identical national adoption of ISO 12640-2:2004) Graphic technology – Prepress digital data exchange – Part 2: XYZ/sRGB encoded standard colour image data (XYZ/SCID) 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.	\$80
1200407	CGATS/ISO 12640-3:2007 Graphic technology – Prepress digital data exchange – Part 3: CIELAB standard colour image data (CIELAB/SCID) 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.	\$80

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1200118	<p>CGATS/ISO 12640-4:2012(R2018) Graphic technology — Prepress digital data exchange — Part 4: Wide gamut display-referred standard colour image data [Adobe RGB (1998)/SCID]</p> <p>This identical national adoption of ISO 12640-4 specifies a set of standard wide gamut display-referred colour images [encoded as 16-bit Adobe RGB (1998) digital data] that can be used for the evaluation of changes in image quality during coding, image processing (including colour re-rendering and colour space transformations, 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.</p>	\$80
1200120	<p>ISO 12641-1:2016 Graphic technology — Prepress digital data exchange — Colour targets for input scanner calibration — Part 1: Colour targets for input scanner calibration</p> <p>ISO 12641-1:2016 defines the layout and colorimetric values of targets for use in the calibration of a photographic product/input scanner combination (as used in the preparatory process for printing and publishing). One target is defined for positive colour transparency film and another is defined for colour photographic paper.</p>	\$138
1200215	<p>CGATS/ISO 12642-1(IT8.7/3) (R2020)</p> <p>This identical national adoption of ISO 12642-1 defines an input data file, a measurement procedure and an output data format for use in characterizing any four-colour printing process.</p>	\$80
1200315	<p>CGATS-ISO-12642-2(IT8.7/4) (R2020)</p> <p>This part of ISO 12642 defines a data set of ink value combinations that are intended to be used to characterize 4-colour 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, gravure, flexography, and other printing processes have been considered. While it is primarily aimed at process colour printing with CMYK inks, it can also be used with any combination of three chromatic coloured inks and a dark ink. It is an alternate to the ISO 12642-1 data set where more robust data is required.</p>	\$115
1200317	<p>CGATS/ISO 12646:2016 (identical national adoption of ISO 12646:2015) Graphic technology — Displays for colour proofing — Characteristics</p> <p>This International Standard specifies requirements for two conformance levels for the characteristics of displays to be used for soft proofing of colour images. Included are requirements for uniformity and variations of electrooptical properties with viewing direction for different driving signals.</p>	\$68
1200111	<p>CGATS/ISO 12646:2008 / Amendment 1:2010 (identical national adoption of ISO 12646:2008/Amd.1:2010)</p> <p>This document amends CGATS/ISO 12646:2008. 2 pp.</p>	\$16
1200322	<p>CGATS/ISO 15930-1:2004(R2022) (identical national adoption of ISO 15930-1:2001) 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)</p> <p>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.</p>	\$74
1401304	<p>CGATS/ISO 15930-1:2004 (R2017) (identical national adoption of ISO 15930-1:2001) 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)</p> <p>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.</p>	\$74
1401404	<p>CGATS/ISO 15930-3:2004 (identical national adoption of ISO 15930-3:2002) Graphic technology - Prepress digital data exchange - Use of PDF - Part 3: Complete exchange suitable for colour-managed workflows (PDF/X-3)</p> <p>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.</p>	\$69
1401504	<p>CGATS/ISO 15930-4:2004(R2021) (identical national adoption of ISO 15930-4:2003) 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)</p> <p>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.</p>	\$69
1401704	<p>CGATS/ISO 15930-6:2004(R2018) (identical national adoption of ISO 15930-6:2003) 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)</p> <p>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.</p>	\$69
1200110	<p>CGATS/ISO 15930-7:2010 (identical national adoption of ISO 15930-7:2010) 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</p> <p>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.</p>	\$84

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1200210	<p>CGATS/ISO 15930-8:2010 (identical national adoption of ISO 15930-8:2010) Graphic technology – Prepress digital data exchange using PDF – Part 8: Partial exchange of printing data using PDF 1.6 (PDF/X-5)</p> <p>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. This package includes a 2011 corrigendum and is available as a zip file. 23 pp.</p>	\$44
	<p>CGATS/ISO 15930-9 (identical national adoption of ISO 15930-9:2020) Graphic Technology - Prepress Digital Data Exchange Using PDF - Part 9: Complete Exchange Of Printing Data (PDF/X-6) And Partial Exchange Of Printing Data With External Profile Reference (PDF/X-6p And PDF/X-6n) Using PDF 2.0</p> <p>This document specifies the use of ISO 32000-2 (PDF 2.0) for the complete and partial exchange of digital data intended for print reproduction.</p>	\$89
1200109	<p>CGATS/AIIM/ISO 19005-1:2005 Electronic document file format for long term preservation – Part 1: Use of PDF 1.4 (PDF/A-1)</p> <p>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. This package includes Technical Corrigendum 1:2007 and Technical Corrigendum 2:2011 and is available as a zip file. 31 pp.</p>	\$162
IT8 Standards		
1300117	<p>IT8.6 – 2017(R2022) Graphic technology - Prepress digital data exchange - Diecutting data (DDES3)</p> <p>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.</p>	\$39
1300793	<p>IT8.7/1 - 1993 Graphic technology - Color transmission target for input scanner calibration</p> <p>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.</p>	\$15
1300893	<p>IT8.7/2 - 1993 Graphic technology - Color reflection target for input scanner calibration</p> <p>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.</p>	\$15
1300110	<p>IT8.7/3 - 2010 Graphic technology - Input data for characterization of 4-color process printing 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.</p> <p>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.</p>	\$25
1300205	<p>IT8.7/4 – 2005 Graphic technology – Input data for characterization of 4-color process printing – Expanded data set</p> <p>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.</p>	\$25

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1300119	<p>IT8.7/5 – 2019 Graphic technology — Input data for characterization of 4-color process printing — Extended data set 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.</p> <p>It is seen as an alternate to the IT8.7/4 data set where more neutral scale data is desired.</p>	\$25
<p>ISO Standards <i>These publications are also available from ISO member bodies.</i></p>		
1400114	<p>ISO 5-1:2009 Photography and graphic technology – Density measurements – Part 1: Geometry and functional notation This part of ISO 5 establishes terms, symbols, functional notations and a coordinate system to describe geometric and spectral conditions for the measurement of the degree to which a specimen modulates radiant flux for application in photography, graphic technology, and radiometry. 24 pp.</p>	\$103
1400214	<p>ISO 5-2:2009 Photography and graphic technology – Density measurements – Part 2: Geometric conditions for transmittance density This part of ISO 5 specifies the geometric conditions for measuring ISO 5 standard diffuse and <i>f</i>/4,5 and <i>f</i>/1,6 projection transmittance densities. 20 pp.</p>	\$103
1400314	<p>ISO 5-3:2009 Photography and graphic technology – Density measurements – Part 3: Spectral conditions This part of ISO 5 specifies spectral conditions and computational procedures for the definition of several types of ISO 5 standard densities used in imaging applications in photography and graphic technology. This is provided as a zip file that includes electronic inserts. 50 pp.</p>	\$185
1400414	<p>ISO 5-4:2009 Photography and graphic technology – Density measurements – Part 4: Geometric conditions for reflection density This part of ISO 5 specifies the geometric conditions for the definition of ISO-5 standard reflection density. It also recommends tolerances on geometric conditions that can be used in the design of instruments. The spectral conditions are specified in ISO 5-3. 22 pp.</p>	\$103
1401220	<p>ISO 2834-1:2020 Graphic technology – Laboratory preparation of test prints – Part 1: Paste inks This document specifies a test procedure for the preparation of test prints on paper, board, metals, foils and other suitable substrates using paste inks, such as for offset and letterpress printing, using electrically driven IGT-type and prüfbau-type printability testers. This document describes the procedure for reference optical density and reference ink film thickness. This document describes the method as used on the current models of testers. Most of the described procedures are also applicable in analogy to the older models but can require additional steps to be executed or recalculation of the settings to make them conform to this document</p>	\$138
1401122	<p>ISO 2834-2:2022 Graphic technology – Laboratory preparation of test prints – Part 2: Liquid printing inks This document specifies a test method for preparation of test prints produced with liquid printing inks, either water-based, solvent-based or radiation cured printing inks as used in flexography and gravure printing. Such test prints are intended to be used for reflection-based measurements, such as colorimetry and optical 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. This document is not applicable to inks for ink jet printing.</p>	\$73
1401308	<p>ISO 2834-3:2008 Graphic technology – Laboratory preparation of test prints – Part 3: Screen printing inks 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 in 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.</p>	\$68
1400504	<p>ISO 2836:2004 Graphic technology - Prints and printing inks - Assessment of resistance to various agents This International Standard specifies methods of assessing the resistance of printed materials to liquid and solid agents, solvents, varnishes, and acids. 14 pp.</p>	\$68

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1401017	<p>ISO 2846-1:2017 Graphic technology - Colour and transparency of printing ink sets for four-colour-printing - Part 1: Sheet-fed and heat-set web offset lithographic printing</p> <p>This document specifies the colour and transparency characteristics that are to be met by each ink in a process colour ink set intended for proof and production printing using offset lithography. The specified printing conditions (which use a laboratory printability tester), 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.</p> <p>This document does not apply to fluorescent inks and it does not specify pigments (or spectral characteristics — except informatively) 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 document.</p>	\$103
1401007	<p>ISO 2846-2:2007 Graphic technology - Colour and transparency of ink sets for four-colour-printing - Part 2: Coldset offset lithographic printing</p> <p>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.</p>	\$68
1400609	<p>ISO 3664:2009 Graphic technology and photography – Viewing conditions</p> <p>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.</p>	\$175
1400623	<p>ISO 5776:2022 Graphic technology – Symbols for text proof correction</p> <p>This document specifies symbols for use in copy preparation and proof correction in alphabetic languages and in logographic languages. It is applicable to texts submitted for correction whatever their nature or presentation (manuscripts, typescripts, printer's proofs, etc.) and for marking up copy for all methods of composition. Symbols for the correction of mathematical texts and colour illustrations are not included.</p>	\$200
1400612	<p>ISO/TS 10128:2023 Graphic technology – Methods of adjustment of the colour reproduction of a printing system to match a set of characterization data</p> <p>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.</p>	\$116
1403893	<p>ISO 11084-1:1993 Graphic technology - Register systems for photographic materials, foils and paper - Part 1: Three-pin systems</p> <p>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>ISO 11084-2:2006 Graphic technology - Register systems for photographic materials, foils and paper – Part 2: Register pin systems for plate making</p> <p>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>ISO 12040:1997 Graphic technology - Prints and printing inks-Assessment of light fastness using filtered xenon arc light</p> <p>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. 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>	\$45
1400797	<p>ISO 12218:1997 Graphic technology - Process control -Offset platemaking</p> <p>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>	\$103

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
1401515	<p>ISO 12632:2015 Graphic technology – Ink, paper and labels – Requirements on hot alkali penetration and resistance This International Standard specifies test methods for:</p> <ul style="list-style-type: none"> • Penetrability and removal times of labels that have been wet glued on bottles intended to be refilled and reused, and; • Resistance of printed labels against hot alkaline solution. <p>Test results always deal with systems comprising of substrates, ink films and varnish films if present. This International Standard is valid for label substrates and printed labels. Label substrates include metalized papers. The test procedures are also valid for the evaluation of inks and papers to be used in printing labels.</p>	\$45
1401217	<p>ISO 12634:2017 Graphic technology - Determination of tack of paste inks and vehicles by a rotary tackmeter This document specifies the test procedure for determining the tack value of neat paste inks and vehicles which have low volatility and are unreactive under normal room conditions during the timespan required for testing. This document contains a basic description of Inkometer®1) and Inkomat®2) (Geometry A) and TackOscope®3) and TackTester®4) (Geometry B).</p>	\$103
1400421	<p>ISO 12635:2021 Graphic technology - Plates for offset printing – Dimensions This document 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 (CtP) applications, flatness, edge straightness and burr requirements are also included. These requirements are applicable to unprocessed plates. 20pp.</p>	\$73
1400118	<p>ISO 12636:2018 Graphic technology - Blankets for offset printing This document defines vocabulary and specifies test methods, characteristics, ordering and labelling information for blankets for offset printing. This document does not apply to un-tensioned or unclamped blankets for offset printing, nor offset printing sleeves used on gapless presses.</p>	\$68
1400106	<p>ISO 12637-1:2006 Graphic technology – Vocabulary – Part 1: Fundamental terms 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>	\$68
1401208	<p>ISO 12637-2:2008 Graphic technology – Vocabulary – Part 2: Prepress terms 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>	\$103
1400509	<p>ISO 12637-3:2009 Graphic technology – Vocabulary – Part 3: Printing terms This part of ISO 12637 defines terms for printing systems and processes. 24 pp.</p>	\$138
1400608	<p>ISO 12637-4:2008 Graphic technology – Vocabulary – Part 4: Postpress terms 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>	\$45
1401310	<p>ISO 12639:2004 See CGATS/ISO 12639:2004 (an identical national adoption)</p>	\$209
1400211	<p>ISO 12639:2004/Amd 1:2007 See CGATS/ISO 12639:2004/Amd 1:2007 (an identical national adoption)</p>	\$19
1401410	<p>ISO 12640-1:1997 See CGATS/ISO 12640-1:2007 (an identical national adoption)</p>	\$209
1401510	<p>ISO 12640-2:2004 See CGATS/ISO 12640-2:2007 (an identical national adoption)</p>	\$138
1400422	<p>ISO 12640-3:2022 See CGATS/ISO 12640-3:2007 (an identical national adoption)</p>	\$162
1400411	<p>ISO 12640-4:2011 Graphic technology – Prepress digital data exchange – Part 4: Wide gamut display-referred standard colour image data [Adobe RGB (1998)/SCID] This part of ISO 12640 specifies a set of standard wide gamut display-referred colour images [encoded as 16-bit Adobe RGB (1998) digital data] that can be used for the evaluation of changes in image quality during coding, image processing (including colour re-rendering and colour space transformations, 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. This standard is only available on DVD.</p>	\$138
1400514	<p>ISO 12640-5:2013 Graphic technology – Prepress digital data exchange – Part 5: Scene-referred standard colour image data (RIMM/SCID) This part of ISO 12640 specifies a set of standard scene-referred colour images (encoded as 16-bit RIMM RGB digital data) that can be used to evaluate transforms from a scene-referred image state to an output-referred image state (colour rendering transforms). They can be used for research, testing and assessing colour rendering transforms, in systems such as digital cameras, camera raw processing applications, colour management systems, colour profiles, and output devices such as displays and printers. This standard is only available as a DVD.</p>	\$185

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
1400616	<p>ISO 12641-1:2016 Graphic technology — Prepress digital data exchange — Colour targets for input scanner calibration — Part 1: Colour targets for input scanner calibration This part of ISO 12641 defines the layout and colorimetric values of targets for use in the calibration of a photographic product/input scanner combination (as used in the preparatory process for printing and publishing). One target is defined for positive colour transparency film and another is defined for colour photographic paper.</p>	\$138
1400611	<p>ISO 12642-1:2011 Graphic technology - Input data for characterization of four-colour process printing – Part 1: Initial data set See CGATS/ISO 12642-1(IT8.7/3) (an identical national adoption)</p>	\$103
1401106	<p>ISO 12642-2:2006 Graphic technology – Input data for characterization of 4-colour process printing – Part 2: Expanded data set 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 technically equivalent to ANSI IT8.7/4-2005. Zipped file containing 29 pp document + several data files.</p>	\$162
1401021	<p>ISO 12642-3:2021 Graphic technology - Input data for characterization of 4-colour process printing - Part 3: Extended data set including near neutral scale This document defines a data set of ink value combinations that can be used to characterize four-colour process printing. This data set is not optimized for any printing process or application area but is robust enough for all general applications. While it is primarily aimed at process colour printing with CMYK inks, it can also be used with any combination of three chromatic inks and a dark ink. This document is an alternative to the ISO 12642 2 data set where more neutral scale data are desired. It is not designed as a replacement for ISO 12642-2.</p>	\$200
1401696	<p>ISO 12644:1996 Graphic technology - Determination of rheological properties of paste inks and vehicles by the falling rod viscometer 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.</p>	\$68
1401798	<p>ISO 12645:1998 Graphic technology - Process control- Certified reference material for opaque area calibration of transmission densitometers 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.</p>	\$68
1400515	<p>ISO 12646: 2015 Graphic technology — Displays for colour proofing — Characteristics This International Standard specifies requirements for two conformance levels for the characteristics of displays to be used for soft proofing of colour images. Included are requirements for uniformity and variations of electro-optical properties with viewing direction for different driving signals. 12 pp.</p>	\$68
1400614	<p>ISO 12647-1:2013 Graphic technology - Process control for the manufacture of half-tone colour separations, proof and production prints - Part 1: Parameters and measurement methods This part of ISO 12647 defines and explains the minimum set of primary process control parameters required to uniquely specify the visual characteristics and related technical properties of process-specific production prints and process-independent simulations of fully characterized printing conditions. This third edition cancels and replaces the second edition (ISO 12647-1:2004). 24 pp.</p>	\$111
1400714	<p>ISO 12647-2:2013 Graphic technology - Process control for the manufacture of half-tone colour separations, proof and production prints - Part 2: Offset lithographic processes This part of ISO 12647 specifies a number of process parameters and their values to be applied when producing colour separations, printing forms and print production for four-colour sheet-fed and web-fed offset printing presses excluding coldest offset lithography on newsprint. This third edition cancels and replaces the second edition which has been extensively revised. The revisions include deletion of film-based requirements; changes in proof requirements; changes in printing conditions; changes in the colouration of the primary and secondary solids; introduction of new tone value increase curves; general clean up. 32 pp.</p>	\$138
1400814	<p>ISO 12647-3:2013 Graphic technology - Process control for the manufacture of half-tone colour separations, proofs and production prints - Part 3: Coldset offset lithography on newsprint 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.</p>	\$138

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
1401014	<p>ISO 12647-4:2014 Graphic technology – Process control for the production of half-tone colour separations, proof and production prints – Part 4: Publication gravure printing 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 chosen in view of the complete process covering the process stages "colour separation", "making of the printing forme", "proof production" and "production printing". 17pp.</p>	\$103
1400115	<p>ISO 12647-5:2015 Graphic technology — Process control for the manufacture of half-tone colour separations, proof and production prints — Part 5: Screen printing This part of ISO 12647 specifies the requirements for the screen printing of four-colour process-colour material used for display, signage, and graphics using flat bed or cylinder printing equipment. Both the sie and resolution of the finished product are unrestricted. 16 pp.</p>	\$68
1400720	<p>ISO 12647-6:2020 Graphic technology – Process control for the production of half-tone colour separations, proofs and production prints – Part 6: Flexographic printing This document specifies the requirements for the exchange of data and information necessary for the definition of the aims for four-colour flexographic printing of packaging and publication materials, including newsprint. It is based on the use of colour characterization data to define the colourimetric printing aims and includes appropriate assignment of responsibility for and recommended tolerances on critical parameters of the flexographic printing process. 24 pp.</p>	\$103
1401216	<p>ISO 12647-7:2016 Graphic technology – Process control for the production of half-tone colour separations, proof and production prints – Part 7: Proofing processes working directly from digital data This document 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.</p>	\$138
1400121	<p>ISO 12647-8:2021 Graphic technology – Process control for the production of half-tone colour separations, proofs and production prints – Part 8: Validation print processes working directly from digital data This document specifies requirements that can be used for determining the conformance of systems that produce a hard-copy validation print, directly from digital data, which is intended to simulate the expected appearance of material printed in accordance with a characterized printing condition.</p> <p>It is not intended for use in determining the conformance of production printing systems (digital or conventional) since many aspects of production printing are not covered in this document. 30 pp.</p>	\$111
1400521	<p>ISO 12647-9:2021 Graphic technology - Process control for the production of half-tone colour separations, proof and production prints - Part 9: Metal decoration printing processes using offset lithography This document specifies requirements for systems that are used to produce offset prints for process colour reproduction on metallic substrates, which have been printed with a white coating. It is intended for flat printed sheet metal applications. It does not cover shaped or pre-formed metal such as pre-formed cans. Recommendations are provided with regard to appropriate test methods associated with these requirements.</p> <p>This document differs from the method used to produce an offset print on paper or board in ISO 12647-2 in that it considers the colour values of a typical white coated metal substrate intended for metal decoration, using offset lithography and substrates that are independent of backing colour.</p>	
1400711	<p>ISO/TR 12705:2011 Graphic technology – Laboratory test method for chemical ghosting in lithography This Technical Report describes a laboratory method, using a printability tester, for the preparation of specimens in order to evaluate the tendency of a particular ink, substrate and printing procedure to produce chemical ghosting in sheet-fed offset lithography on coated papers or foils. 10 pp.</p>	\$45
1400617	<p>ISO 13655:2017 Graphic technology — Spectral measurement and colorimetric computation for graphic arts images This document specifies procedures for the measurements and colorimetric computations appropriate to objects that reflect, transmit and emit light, such as flat-panel displays. It also specifies procedures for computation of colorimetric parameters for graphic arts images. Graphic arts include, but are not limited to, the preparation of material for, and volume production by, production printing processes that include offset lithography, letterpress, flexography, gravure, screen and digital printing.</p> <p>This document does not address spectral measurements appropriate to other specific application needs, such as those used during the production of materials, for example, printing paper and proofing media.</p>	\$200
1401311	<p>ISO 14020:2000 Environmental labels and declarations – General principles This International Standard establishes guiding principles for the development and use of environmental labels and declarations. It is intended that other applicable standards in the ISO 14020 series be used in conjunction with this International Standard. 5 pp.</p>	\$45

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
1401222	<p>ISO 14020:2022 Environmental statements and programmes for products - Principles and general requirements This document establishes principles and specifies general requirements that are applicable to all types of product-related environmental statements and environmental statement programmes. Environmental statements result from environmental statement programmes and include self-declared environmental claims, ecolabels, environmental product declarations (EPDs) and footprint communications. This document is intended to be used in conjunction with other standards in the ISO 14020 family. NOTE Those other standards contain additional terms and definitions, principles and requirements that are relevant to their specific scopes.</p>	\$149
1400811	<p>ISO 14040:2006 Environmental management – Life cycle assessment – Principles and framework This International Standard describes the principles and framework for life cycle assessment (LCA). It covers LCA studies and life cycle inventory (LCI) studies. It does not describe the LCA technique in detail, nor does it specify methodologies for the individual phases of the LCA. 20 pp.</p>	\$138
1401020	<p>ISO 14040:2006/Amd1:2020 This is an amendment to ISO 14040.</p>	
1400911	<p>ISO 14044:2006 Environmental management – Life cycle assessment – Requirements and guidelines This International Standard specifies requirements and provides guidelines for life cycle assessment (LCA). It covers LCA studies and life cycle inventory (LCI) studies. 46 pp.</p>	\$185
1401120	<p>ISO 14044:2006/Amd2:2020 This is an amendment to ISO 14044:2006</p>	\$19
1401211	<p>ISO 14064-1:2006 Greenhouse gases – Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals This part of ISO 14064 specifies principles and requirements at the organization level for quantification and reporting of greenhouse gas (GHG) emissions and removals. It includes requirements for the design, development, management, reporting and verification of an organization's GHG inventory. 20 pp.</p>	\$138
1400721	<p>ISO 14298:2021 Graphic technology — Management of security printing processes This document specifies requirements for a security printing management system for security printers. This document specifies a minimum set of security printing management system requirements. Organizations ensure that customer security requirements are met as appropriate, provided these do not conflict with the requirements of this document. 28pp.</p>	\$149
1400400	<p>ISO/TR 14672:2000 Graphic technology - Statistics of the natural SCID images defined in ISO 12640 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.</p>	\$209
1400715	<p>ISO 14861:2015 Graphic technology – Requirements for colour soft proofing systems This International Standard specifies requirements for systems that are used to produce, from digital data, images on electronic displays that are intended to simulate a characterized printing condition defined by a set of characterization data and spot colours defined by a physical reference. Recommendations are provided with regard to equipment selection, setup, operating, and environmental conditions. Appropriate test methods associated with these requirements are specified.</p>	\$68
1402610	<p>ISO 15076-1:2010 Image technology colour management – Architecture, profile format and data structure – Part 1: Based on ICC.1:2010 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.</p>	\$232
1401720	<p>ISO/TS 15311-1; 2020 Graphic technology — Requirements for printed matter for commercial and industrial production — Part 1: Measurement methods and reporting schema This document defines print quality metrics, measurement methods and reporting requirements for printed sheets that are suitable for all classes of printed products. Guidance as to which of these metrics to apply to any given product category along with acceptable conformance criteria is provided in subsequent parts of ISO/TS 15311. Although this document is expected to be used primarily to measure prints from digital printing systems, the metrics are general and can be applied to other kinds of print.</p>	\$148

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
1400815	<p>ISO/PAS 15339-1:2015 Graphic technology — Printing from digital data across multiple technologies — Part 1: Principles This part of ISO/PAS 15339 establishes principles for the use of colour characterization data as the definition of the intended relationship between input data and printed colour for copy preparation, job assembly, proofing, and graphic arts production printing. Additional parts of ISO/PAS 15339 specify a limited number of characterized reference printing conditions that span the expected range of colour gamuts used for the production of printed material from digital data, regardless of printing process used. The procedure to be used to adjust colour characterization data for the normally expected range of substrate colour is specified.</p>	\$103
1400915	<p>ISO/PAS 15339-2:2015 Graphic technology — Printing from digital data across multiple technologies — Part 2: Characterized reference printing conditions, CRPC1–CRPC7 This part of ISO/PAS 15339 specifies a limited number of characterized reference printing conditions that span the expected range of colour gamuts used for the production of printed materials from digital data, regardless of the printing process used. Their use is described in ISO/PAS 15339-1.</p>	\$68
1401214	<p>ISO 15341:2014 Graphic technology — Method for radius determination of printing cylinders This International Standard defines a method for measuring the external radius of printing cylinders, specifies critical parameter and operational instructions and provides recommendations for instrument design. 17 pp.</p>	\$103
1400718	<p>ISO 15394:2017 Packaging — Bar code and two-dimensional symbols for shipping, transport and receiving labels This document:</p> <ul style="list-style-type: none"> • specifies the minimum requirements for the design of labels containing linear bar code and two-dimensional symbols on transport units to convey data between trading partners; • provides for traceability of transported units using a unique transport unit identifier (licence plate); • provides guidance on the formatting on the label of data presented in linear bar code, two-dimensional symbol or human-readable form; • provides specific recommendations regarding the choice of bar code symbologies, and specifies quality requirements; • provides recommendations as to label placement, size and the inclusion of free text and any appropriate graphics; • provides guidance on the selection of the label material. <p>This document is not applicable to the direct printing on to kraft coloured corrugated surfaces.</p>	\$209
1400818	<p>ISO/IEC 15426-1:2006 Information technology — Automatic identification and data capture techniques — Bar code verifier conformance specification — Part 1: Linear symbols This part of ISO/IEC 15426 defines test methods and minimum accuracy criteria for verifiers using the methodology of ISO/IEC 15416 for linear bar code symbols, and specifies reference calibration standards against which these should be tested. This part of ISO/IEC 15426 provides for testing of representative samples of the equipment.</p>	\$68
1400918	<p>ISO/IEC 15426-2:2015 Information technology — Automatic identification and data capture techniques — Bar code verifier conformance specification — Part 2: Two-dimensional symbols This part of ISO/IEC 15426 defines test methods and minimum accuracy criteria applicable to verifiers using the methodologies of ISO/IEC 15415 for multi-row bar code symbols and two-dimensional matrix symbologies, and specifies reference calibration standards against which these should be tested. This part of ISO/IEC 15426 provides for testing of representative samples of the equipment.</p>	\$103
1400914	<p>ISO 15397:2014 Graphic technology – Communication of graph paper properties This International Standard specifies the list of relevant properties of paper substrates to be communicated between the paper and printing industries. It is applicable to papers intended to be printed in rotogravure, cold-set web offset, heat-set web offset, sheet-fed offset, and flexographic printing processes and to proofing substrates. 20 pp.</p>	\$68
1400618	<p>ISO/IEC 15415:2011 Information technology — Automatic identification and data capture techniques — Bar code symbol print quality test specification — Two-dimensional symbols This International Standard</p> <ul style="list-style-type: none"> • specifies two methodologies for the measurement of specific attributes of two-dimensional bar code symbols, one of these being applicable to multi-row bar code symbologies and the other to two-dimensional matrix symbologies; • defines methods for evaluating and grading these measurements and deriving an overall assessment of symbol quality; • gives information on possible causes of deviation from optimum grades to assist users in taking appropriate corrective action. <p>This International Standard applies to those two-dimensional symbologies for which a reference decode algorithm has been defined, but its methodologies can be applied partially or wholly to other similar symbologies. While this International Standard can be applied to direct part marks, it is possible that better correlation between measurement results and scanning performance will be obtained with ISO/IEC TR 29158 in combination with this International Standard.</p>	\$185

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
1400518	<p>ISO/IEC 15416:2016 Automatic identification and data capture techniques — Bar code print quality test specification — Linear symbols This document: — specifies the methodology for the measurement of specific attributes of bar code symbols; — defines a method for evaluating these measurements and deriving an overall assessment of symbol quality; and — provides information on possible causes of deviation from optimum grades to assist users in taking appropriate corrective action. This document applies to those symbologies for which a reference decode algorithm has been defined, and which are intended to be read using linear scanning methods, but its methodology can be applied partially or wholly to other symbologies.</p>	\$185
1400117	<p>ISO/IEC 15426-1:2006(E) Information technology — Automatic identification and data capture techniques — Bar code verifier conformance specification — Part 1: Linear symbols This part of ISO/IEC 15426 defines test methods and minimum accuracy criteria for verifiers using the methodology of ISO/IEC 15416 for linear bar code symbols and specifies reference calibration standards against which these should be tested. This part of ISO/IEC 15426 provides for testing of representative samples of the equipment. NOTE ISO/IEC 15426-2 applies to verifiers for two-dimensional bar code symbols.</p>	\$68
1400217	<p>ISO/IEC 15426-2:2015(E) Information technology — Automatic identification and data capture techniques — Bar code verifier onformance specification — Part 2: Two-dimensional symbols This part of ISO/IEC 15426 defines test methods and minimum accuracy criteria applicable to verifiers using the methodologies of ISO/IEC 15415 for multi-row bar code symbols and two-dimensional matrix symbologies and specifies reference calibration standards against which these should be tested. This part of ISO/IEC 15426 provides for testing of representative samples of the equipment. NOTE ISO/IEC 15426-1 applies to verifiers for linear bar code symbols.</p>	\$103
1402010	<p>ISO 15930-1:2001 See CGATS/ ISO 15930-1:2004 (R2006) (an identical national adoption)</p>	\$103
1402110	<p>ISO 15930-3:2002 See CGATS/ISO 15930-3:2004 (an identical national adoption)</p>	\$103
1402210	<p>ISO 15930-4:2003 See CGATS/ISO 15930-4:2004 (an identical national adoption)</p>	\$103
1402410	<p>ISO 15930-6:2003 See CGATS/ISO 15930-6:2004 (an identical national adoption)</p>	\$103
1401010	<p>ISO 15930-7:2010 See CGATS/ISO 15930-7:2010 (an identical national adoption)</p>	\$162
1401110	<p>ISO 15930-8:2010 See CGATS/ISO 15930-8:2010 (an identical national adoption)</p>	\$103
1401620	<p>ISO 15930-9:2020 See CGATS/ISO 15930-9:20xx (an identical national adoption)</p>	\$138
1400103	<p>ISO/TR 16066:2003 Graphic technology – Standard object colour spectra database for colour reproduction evaluation (SOCS) 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.)</p>	\$209
1400705	<p>ISO 16612-1:2005 Graphic technology – Variable printing data exchange – Part 1: Using PPML 2.1 and PDF 1.4 (PPML/VDX-2005) 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.</p>	\$162
1400810	<p>ISO 16612-2:2010 Graphic technology – Variable data exchange – Part 2: Using PDF/X-4 and PDF/X-5 (PDF/VT-1 and PDF/VT-2) 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.</p>	\$185

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
1401820	<p>ISO 16612-3:2020 Graphic technology - Variable data exchange - Part 3: Using PDF/X-6 (PDF/VT-3) enable reliable document exchange for variable data and transactional (VT) printing. It uses the Portable Document Format (PDF) Version 2.0, as restricted by PDF/X-6, for the representation of such documents. It allows the specification of document structure and layout, content data, and interaction of graphics 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 ICC profiles.</p> <p>PDF/VT-3 is designed to enable variable data and transactional printing in a variety of environments from desktop printers to digital production presses. This includes hybrid workflows involving both conventional and digital printing.</p>	\$68
1400917	<p>ISO 16613-1:2017 Graphic technology — Variable content replacement —Part 1: Using PDF/X for variable content replacement (PDF/VCR-1) This document enables variable data printing applications using PDF template-based variable content substitution where — a PDF template file containing pages with variable content substitution fields (placeholders) is delivered ahead of a print production run and may be reused across multiple print production runs, and — PDF-based variable data substitution content is provided during print production and merged with the PDF template to produce final form variable content page output. This document defines PDF/VCR (PDF for variable content replacement), a set of base technical requirements for a PDF template file format, a PDF-based variable data substitution content format and a framework for in-RIP variable content merging. The PDF/VCR base technical requirements do not include writer and processor conformance. This document also defines the PDF/VCR-1 conformance level which is based on the PDF/VCR base technical requirements and defines conformance requirements for: — the PDF/VCR-1 template file format; — the PDF/VCR-1 data sequence format, a variable data substitution content format; — a PDF/VCR-1 writer, a software application which can generate PDF/VCR-1 template files; — a PDF/VCR-1 data provider, a software application which can generate PDF/VCR-1 data sequences; — a PDF/VCR-1 processor, a software application which can perform substitution (replacement) of PDF/VCR-1 template placeholder objects with substitution content provided within a PDF/VCR-1 data sequence. NOTE 1 Additional conformance levels can be added at a later time based on the same PDF/VCR base technical requirements. NOTE 2 A conforming PDF/VCR-1 template file contains all necessary information for variable content printing by adding matching substitution content. Generating the substitution content usually requires additional information not present in the template file. The template file format defined in this document is based on the ISO 15930 (PDF/X) family of standard formats for the representation of a single or multiple page template containing both static content and stylized variable content placeholders. The variable data format defined in this document is based on the CSV file format defined in RFC 4180. It supports the representation of substitution content data that can be merged into the template’s variable content placeholders to produce complete page content utilizing the full PDF graphics model.</p>	\$138
1400112	<p>ISO 16684-1:2012 Graphic technology – Extensible metadata platform (XMP) specification – Part 1: Data model, serialization and core properties This part of ISO 16684 defines two essential components of XMP metadata – the <i>data model</i> which defines the forms of XMP metadata items, essentially the structure of statements that XMP can make about resources and <i>serialization</i> which defines how any instance of the XMP data model can be recorded as XML. This document also defines a collection of <i>core properties</i> which are XMP metadata items that can be applied across a broad range of file formats and domains of usage. 43 pp.</p>	\$185
1401314	<p>ISO 16684-2:2014 Graphic technology — Extensible metadata platform (XMP) — Part 2: Description of XMP schemas using RELAX NG This part of ISO 16684 specifies the use of RELAX NG to describe the serialized XMP metadata. This applies to how conforming schemas can use the features of RELAX NG.</p>	\$185
1400413	<p>ISO 16759:2013 Graphic technology – Quantification and communication for calculating the carbon footprint of print media products This International Standard specifies the requirements for quantifying the carbon footprint of those processes, materials and technologies required to produce print media products using any form of printing technology and that are within the user’s knowledge and control. It is based on a Life Cycle Assessment (LCA) approach, using defined system boundaries and a specified functional unit as the basis for complete or partial carbon footprinting studies. This data can be referenced throughout supply chains for individual print media products. Together with ISO 14020 and other ISO standards, this International Standard defines standards of completeness to be followed when communicating the results of a carbon footprint study for print media products to business and consumers. This International Standard provides a framework for carbon calculators that organisations can follow, and that can be used as the structure for market or sector-specific carbon footprinting tools. Studies and tools constructed within this framework methodology provide carbon footprint quantifications of print media products that can be validated and verified. 48 pp</p>	\$185

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
1401114	<p>ISO 16760:2014 Graphic technology — Prepress data exchange — Preparation and visualization of RGB images to be used in RGB-based graphic arts workflows This International Standard specifies requirements for an RGB workflow for graphic arts printing based on the use of reflection prints (RGB Reference Prints) as the evaluation vehicle for coloured images. It provides guidelines on the creation of print-targeted RGB images (RGB Reference Images) and simulation prints.</p>	\$185
1401316	<p>ISO 16762:2016 Graphic technology — Post-press — General requirements for transfer, handling and storage This document specifies the requirements for the handling, storage and transfer of printed products between printing and post-press. It also identifies information that may be necessary for successful completion of post-press operations (job ticket). In addition, the handling of materials used within the post-press operation is specified.</p>	\$103
1400116	<p>ISO 16763:2016 Graphic technology — Post-press — Requirements for bound products This International Standard specifies quality requirements and tolerances of bound products and intermediate components. It is applicable to products requiring industrial binding, for example, books, magazines, catalogues and brochures.</p>	\$138
1400215	<p>ISO 17972-1:2015 This part of ISO 17972 defines an exchange format for colour and process control data (and the associated metadata necessary for its proper interpretation) in electronic form. It is the base document for describing the use of CxF3 for data exchange. Where required, this part of ISO 17972 also defines additional requirements for a valid CxF/X file. Using XML, all CxF3 and CxF/X documents also support the exchange of data outside of the graphic arts workflow and can support future standards with an extensible architecture using standard XML Names and Metadata tags which can be used with standard XML tools and pass XML validation. 17 pp.</p>	\$103
1400516	<p>ISO 17972-2:2016 Graphic technology — Colour data exchange format (CxF/X) — Part 2: Scanner target data (CxF/X-2) This part of ISO 17972 defines an exchange format for target input values, colour and process control data relating to scanner targets (and the associated metadata necessary for its proper interpretation) in electronic form. This part of ISO 17972 includes the use of a CustomResource element within the CxF framework to define a minimum set of data for exchange and identify the data as being part of ISO 12641.</p>	\$68
1401117	<p>ISO 17972-3:2017 Graphic technology — Colour data exchange format (CxF/X) — Part 3: Output target data (CxF/X-3) This document defines an exchange format for target input values, colour and process control data relating output targets for printers of all types (and the associated metadata necessary for its proper interpretation) in electronic form. This document includes the use of a CustomResource element within the CxF framework to define a minimum set of data for exchange and identify the data as being part of the ISO 12642 series. If this same framework is used for another defined target, provision is made for that use as well.</p>	\$68
1400418	<p>ISO 17972-4:2018 Graphic technology — Colour data exchange format (CxF/X) — Part 4: Spot colour characterisation data (CxF/X-4) This document defines an exchange format for spectral measurement data of inks to provide a means to characterise spot colour inks to allow reliable printing and proofing of products that have been designed using these inks. Only isotropic (paper-like) substrates are within the scope of this document, which is limited to application areas where the same ink and paper combination that has been characterised is used when printing. This document describes the use of a CustomResource element within the CxF framework to define a minimum and recommended set of data for exchange.</p>	\$103
1400415	<p>ISO 18619:2015 Image technology colour management — Black point compensation This International Standard specifies a procedure, including computation, by which a transform between ICC profiles can be adjusted (compensated) to take into account differences between the dark end of the source colour space and the dark end of the destination colour space. This is referred to as black point compensation (BPC). The relative colorimetric encoding of ICC profile transforms already provides a mechanism for such adjustment of the light (white) end of the tone scale.</p>	\$103
1400316	<p>ISO 18620:2016 Graphic technology — Prepress data exchange — Tone adjustment curves exchange This International Standard specifies a simple extensible format for the exchange of tone adjustment curves between applications including but not limited to colour management, calibration and raster image processor systems.</p>	\$68
1402510	<p>ISO 19005-1:2005 See CGATS/AIIM/ISO 19005-1:2005 (an identical national adoption)</p>	\$162
1401015	<p>ISO/TR 19300:2015 Graphic technology — Guidelines for the use of standards for print media production This Technical Report provides guidelines to enable print industry stakeholders to use ISO/TC 130 and related standards in print media production workflows. The use of these standards is intended to enhance production quality, business performance, profitability and sustainability.</p>	\$103
1400922	<p>ISO 19445:2022 Graphic technology — Metadata for graphic arts workflow — XMP metadata for image and document proofing This document specifies the set of metadata to be used to communicate the approval status, proof preparation and viewing parameters for images and documents that are used in the graphic arts print production workflow.</p>	\$73

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
1401018	<p>ISO 19593-1:2018 Graphic technology – Use of PDF to associate processing steps and content data – Part 1: Processing steps for packaging and labels This document describes a method for storing data in a PDF file that correspond to the processing steps of printed products. This method has three parts:</p> <ol style="list-style-type: none"> 1) metadata identifying processing steps; 2) limitations on the interaction between PDF graphics objects that are part of a processing step and other PDF graphics objects; 3) limitations on PDF graphic objects in processing steps. <p>This method is intended to be generic, i.e., not specific to packaging and labels. In addition, this document defines the following packaging- and label-specific groups of processing-steps data:</p> <ul style="list-style-type: none"> – data corresponding to finishing steps, such as cutting, folding or glueing; – Braille; – Information panels; – Indications of physical dimensions; – Indications of intended positions of graphical elements; – Printed white, for example on transparent or metallic surfaces; – Printed varnish. 	\$103
1400317	<p>ISO 19594:2017 Graphic technology — Test method for the determination of the binding strength for perfect-bound products — Page-pull test working upwards This document specifies a test method for the determination of the binding strength of perfect-bound products by pulling out single sheets from the book block in an upward direction.</p>	\$103
1400218	<p>ISO 20654:2017 Graphic technology — Measurement and calculation of spot colour tone value This document defines a metric for assessing intermediate tones of a spot ink. This method for the calculation of Spot Colour Tone Value (SCTV) produces approximately uniform visual spacing of tones between substrate and solid. It can be calculated from spectral reflectance or colorimetric measurements of the solid ink, substrate and one or more patches of intermediate tones to be measured.</p>	\$45
1400318	<p>ISO 20690:2018 Graphic technology — Determination of the operating power consumption of digital printing devices This document provides requirements and recommendations for measuring the electricity consumption of small-format and wide-format digital production presses printing in different modes of operation. It is intended for use on equipment that has been declared by the manufacturer to be suitable for use as a digital production printing press. This document provides a means to compare the energy efficiency figures according to two or more characteristic machine combinations: Best Quality (BQ), Best Productivity (BP) or other combinations. This document is not suitable for determining the power consumption of individual device components such as servos, fans, compressors, control boards and so on. It excludes digital presses designed to print textiles intended for clothing or machines, which similarly depend on additional processes to produce the printed product, such as ceramics.</p>	\$138.00
1400522	<p>ISO/TS 21328:2022 Graphic technology - Guidelines and recommendations for multicolour (CMYKOGV) print characterization This document provides guidelines and a procedure to generate a multicolour characterization dataset. Specifications for colour printing with CMYK + Orange, Green, and Violet are presented. Also, this document provides a recommendation on CMYKOGV ink pigment selections to produce an optimum colour gamut for specific printing processes or use cases. The recommended CMYKOGV ink pigment selections might not be suitable or available for all printing or digital processes or use cases. The procedure in this document is also applicable for CMYK plus any subset of O, G or V.</p>	\$111
1400417	<p>ISO 22028-1:2016 Photography and graphic technology – Extended colour encodings for digital image storage, manipulation and interchange – Part 1: Architecture and requirements 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. This part of ISO 22028 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. This part of ISO 22028 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. However, this part of ISO 22028 does not specify any particular workflow(s) that are to be used for digital photography and/or graphic technology applications.</p>	\$209
1400108	<p>ISO 22028-2:2013 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) 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. It revises and replaces ISO/TS 22028-2:2006. 17 pp.</p>	\$138

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
1400208	<p>ISO/TS 22028-3:2012 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)</p> <p>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. It revises and replaces ISO/TS 22028-3:2006. 18 pp.</p>	\$138
1400123	<p>ISO 22028-3:2023 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)</p> <p>This document 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.</p> <p>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. FP-RIMM RGB, a floating point version of RIMM RGB, defines the expression method of RIMM RGB in a floating point figure. Three precision levels of FP-RIMM RGB are defined using 16-, 32- and 64-bits/channel.</p>	\$149
	<p>ISO/TS 22028-4:2023 Photography and graphic technology – Extended colour encodings for digital image storage, manipulation and interchange – Part 4: European Colour Initiative RGB colour image encoding [eciRGB (2008)]</p> <p>This Technical Specification defines an extended colour-gamut output-referred RGB colour image encoding designated as European Colour Initiative RGB [eciRGB (2008)]. Digital images encoded using eciRGB (2008) can be manipulated, stored, transmitted, displayed, or printed by digital still picture imaging systems. Two precision levels are defined, using 8 bits/channel and 16 bits/channel.</p>	\$237
1401022	<p>ISO 22067-1:2022 Graphic technology - Requirements for communication of environmental aspects of printed products - Part 1: General printing</p> <p>The ISO 22067 series specifies requirements and criteria for communication of environmental aspects within the print production supply chain. This document specifies requirements for environmental communication on print production, including all processes and print components used for the production of the final printed materials. This document is applicable for most printing methods but excludes, due to their unique processing requirements, printing on textiles and ceramics.</p>	
1400312	<p>ISO 22934:2021 Graphic technology - Communication of offset ink properties</p> <p>This document specifies offset ink related properties which are intended to be communicated between ink supplier and the printer, and which are essential for the optimized print production planning and the intended use of the final product.</p> <p>NOTE The final product is not necessarily the finished print product.</p> <p>Aspects related to food safety and other safety requirements like children's toys safety are not part of the scope of this document.</p>	\$48
1400620	<p>ISO/TS 23031:2020 Graphic technology – Assessment and validation of the performance of spectrophotometers and spectrodensitometers</p> <p>This document describes procedures for the assessment and validation of the performance of an optical spectrometer intended for use in capturing the spectral reflectance factor or the spectral radiance factor of printed areas comprised of non-fluorescent or fluorescent materials, respectively. While it does not describe the application to transmitting materials directly, many of the procedures can be applied to transmitting systems by backing them with a reflective white backing material.</p> <p>This document does not address spectral measurements appropriate to other specific application needs, such as those used during the production of materials (e.g. printing paper and proofing media), which are well described by ISO standards under the jurisdiction of ISO/TC 6. It does not describe the special requirements for testing instruments that make in-process or online colour measurements.</p>	\$138
1400820	<p>ISO 23498:2020 Graphic technology - Visual opacity of printed white ink</p> <p>This document specifies a method of measuring the visual opacity of printed specimens of white ink. It is applicable to printing opaque white ink on transparent and white or coloured opaque substrates.</p>	\$68
1400722	<p>ISO 23498:2022 Graphic technology - Visual opacity of printed white ink</p> <p>This document specifies a method of measuring the visual opacity of printed specimens of white ink. It is applicable to printing opaque white ink on transparent and white or coloured opaque substrates.</p>	\$73

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
	<p>ISO 24585-1:2023 Graphic technology - Multispectral imaging measurement and colorimetric computation for graphic arts and industrial application - Part 1: Parameters and measurement methods This document establishes procedures for the spatially resolved spectral measurement of reflecting flat objects, including inline colour measurements. It also establishes procedures for computation of colorimetric parameters for graphic arts multispectral imaging devices. 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, screen and all kind of digital printing. This document does not address spatially resolved spectral measurements of transmitting or self-illuminating objects including flat-panel displays. This document is not applicable to step and repeat spot reading scanning instruments. It does not address printing on a metallic or interference foil.</p>	\$77
	<p>ISO 24585-2:2023 Graphic technology - Multispectral imaging measurement and colorimetric computation for graphic arts and industrial application - Part 2: Requirements for decorative surfaces This document specifies requirements for multispectral imaging devices to measure and compare the decorative surfaces. Based on spatially resolved spectral measurement of reflecting surfaces, tristimulus images are computed. A metric is provided that reflects the visual closeness between a reference surface and a comparison surface using a single index called SIM_PDE. Recommendations are provided with regard to laboratory sample preparation. This document is not applicable to functional surfaces.</p>	\$77
1400622	<p>ISO 28178:2022 Graphic technology – Exchange format for colour and process control data using XML or ASCII text 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.</p>	\$200
1400309	<p>ISO 32000-1:2008 Document management – Portable document format – Part 1: PDF 1.7 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.</p>	\$232
1400817	<p>ISO 32000-2:2017 Document management — Portable document format —Part 2: PDF 2.0 This document specifies 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 developers of software that creates PDF files (PDF writers), software that reads existing PDF files and (usually) interprets their contents for display (PDF readers), software that reads and displays PDF content and interacts with the computer users to possibly modify and save the PDF file (interactive PDF processors) and PDF products that read and/or write PDF files for a variety of other purposes (PDF processors). (PDF writers and PDF readers are more specialised classifications of interactive PDF processors and all are PDF processors). This document does not specify the following: •specific processes for converting paper or electronic documents to the PDF file format; •specific technical design, user interface implementation, or operational details of rendering; •specific physical methods of storing these documents such as media and storage conditions; •methods for validating the conformance of PDF files or PDF processors; •required computer hardware and/or operating system.</p>	\$232
1401118	<p>ISO/TS 15311-2:2018 Graphic technology - Print quality requirements for printed matter - Part 2: Commercial print applications utilizing digital printing technologies This document gives guidance to print buyers and other users of print for assessing printed products on isotropic substrates that are typically held at a viewing distance of 30 to 50 cm. It specifies the proper application of required, recommended and optional metrics, measurement methods and, where appropriate, reporting requirements in the general commercial market. Although this document is expected to be used primarily to measure prints from digital printing systems the metrics are general and may be applied to other kinds of print. This document does not provide process control aims or tolerances as these differ widely for different types of commercial applications.</p>	\$138
1401218	<p>ISO/TS 21830:2018 Image technology colour management – Black point compensation for n-colour ICC profiles This document specifies a procedure, including computation, for extending the method described in ISO 18619:2015 to n-colour ICC profiles specifically for the xCLR cases where the colourants are either CMYK plus combinations from the set of red, orange, green, blue and violet or where, for the 3CLR case, the colourants are CMY-like chromatic colourants with widely-spaced hue angles. Other types of colour spaces which are otherwise permitted by 15076-1, such as 2CLR (two-device colourants), are not addressed by this document.</p>	\$45

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
1401207	<p>ISO/IEC Guide 99:2007 International vocabulary of metrology -- Basic and general concepts and associated terms (VIM) 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.</p>	\$232
1401318	<p>ISO 20294:2018 Graphic Technology - Quantification And Communication For Calculating The Carbon Footprint Of E-Media This document specifies the requirements for quantifying the carbon footprint of those processes, materials and technologies within the user's knowledge and control that are necessary for the delivery and use of e-media. It covers requirements to account for e-media archiving, distribution, use and storage. It is based on a life cycle assessment (LCA) approach, using defined system boundaries and a specified functional unit as the basis for complete or partial carbon footprinting studies. These data can be referenced throughout supply chains for individual e-media products.</p>	\$162.00
1401418	<p>ISO 19302:2018 Graphic Technology - Colour Conformity Of Printing Workflows This document defines the requirements of printing workflows and evaluation methods for their tone and colour reproduction. It applies to any printing process using any colourant, such as CMYK, CMYK with spot, non-CMYK, spot only or multicolour.</p>	\$103.00
1401518	<p>ISO 21632:2018 Graphic Technology - Determination Of The Energy Consumption Of Digital Printing Devices Including Transitional And Related Modes This document provides directions for measuring and calculating the electricity consumption of any format of digital production press, whose modes, other than production printing mode, play a significant role in the comprehensive energy consumption. It excludes digital presses designed to print substrates other than paper or plastic and conventional printing presses fitted with digital inkjet printing heads.</p>	\$185.00
1401320	<p>ISO 21632:2018/Amd1:2020 Graphic technology — Determination of the energy consumption of digital printing devices including transitional and related modes AMENDMENT 1 This is an amendment to ISO 21532:2018</p>	\$19
1400219	<p>ISO 20677:2019 Image Technology Colour Management - Extensions To Architecture, Profile Format And Data Structure This document is based on ISO 15076-1, and describes an expanded profile specification and profile connections that permit greater flexibility and functionality than ISO 15076-1. All definitions and requirements in ISO 15076-1 are therefore in force unless otherwise specified by this document. This document defines minimum structural and operational requirements for writing and reading ICC profiles. Additional workflow requirements and restrictions are defined in domain-specific interoperability conformance specification (ICS) documents approved and registered by the ICC.</p>	\$232.00
1400319	<p>ISO 16684-1:2019 Graphic Technology - Extensible Metadata Platform (XMP) - Part 1: Data Model, Serialization And Core Properties This document defines two essential components of XMP metadata: — Data model: The data model is the most fundamental aspect. This is an abstract model that defines the forms of XMP metadata items, essentially the structure of statements that XMP can make about resources. — Serialization: The serialization of XMP defines how any instance of the XMP data model can be recorded as XML.</p>	\$185.00
1400419	<p>ISO 21812-1:2019 Graphic Technology - Print Product Metadata For PDF Files - Part 1: Architecture And Core Requirements For Metadata The document part metadata in a PDF file that conforms to this document can be used to communicate the intended appearance of print products and their components. Examples of intended use are: direct interpretation within a production process, creation of job tickets such as XJDF, or populating records in an MIS.</p>	\$162.00
1400222	<p>ISO/TS 18621-11:2022 Graphic technology - Image quality evaluation methods for printed matter - Part 11: Colour gamut analysis This document defines procedures to measure and compare the colour gamuts of RGB and CMYK printing processes. It is not applicable to other printing processes.</p>	\$111
1401420	<p>ISO/TS 18621-21:2020 Graphic technology - Image quality evaluation methods for printed matter - Part 21: Measurement of 1D distortions of macroscopic uniformity utilizing scanning spectrophotometers This document defines a measurement method for the evaluation of distortions in the macroscopic uniformity of printed areas that are oriented in the horizontal and vertical direction, such as streaks and bands. It provides requirements for the layout of the test form, the use of a colour measurement device taking measurements in a 2D sampling grid, and the formula to compute the Macro-Uniformity-Score. This document does not cover any non-adjacent or non-horizontal nor vertical patterns. Due to the used spatial frequency, the Macro-Uniformity-Score does not measure high frequency (fine) patterns such as missing nozzles.</p>	\$68.00

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
	<p>ISO/TS 18621-21:2023 Graphic technology - Image quality evaluation methods for printed matter - Part 21: Measurement of 1D distortions of macroscopic uniformity utilizing scanning spectrophotometers This document defines a measurement method for the evaluation of distortions in the macroscopic uniformity of printed areas that are oriented in the horizontal and vertical direction, such as streaks and bands.</p> <p>It provides requirements for the layout of the test form, the use of a colour measurement device taking measurements in a 2D sampling grid, and the formula to compute the Macro-Uniformity-Score</p> <p>This document does not cover any non-adjacent or non-horizontal nor vertical patterns. Due to the used spatial frequency, the Macro-Uniformity-Score does not measure high frequency (fine) patterns such as missing nozzles.</p>	\$77.00
1401920	<p>ISO/TS 18621-31:2020 Graphic technology - Image quality evaluation methods for printed matter - Part 31: Evaluation of the perceived resolution of printing systems with the Contrast-Resolution chart This document specifies the Contrast-Resolution test chart, the requirements on the printing process needed to reproduce this test chart, the required characteristics of a high resolution scanner needed to digitize the information reproduced on printed test charts, and the requirements on the interpretation of this digitized data. It also specifies the resolution-score method for evaluating the perceptual resolution of printed material using the Contrast-Resolution test chart.</p> <p>The procedure specified in this document is intended for a characterization of the perceived resolution of a graphic arts production printing system using the Contrast-Resolution test chart.</p>	\$162.00
1400220	<p>ISO 12641-2:2019 Graphic Technology - Prepress Digital Data Exchange - Part 2: Advanced Colour Targets For Input Scanner Calibration This document defines a framework for advanced reflective and transmissive layouts and colorimetric values of targets for use in the calibration and characterization of image capturing devices.</p>	\$103.00
1400320	<p>ISO/TS 23564:2020 Image technology colour management — Evaluating colour transform accuracy in ICC profiles This document describes procedures for evaluating the accuracy of colorimetric rendering intents in ICC profiles.</p> <p>It applies to v4 ICC profiles made according to ISO 15076-1.</p>	\$45.00
1400420	<p>ISO 19301:2020 Graphic Technology - Guidelines For Schema Writers - Template For Colour Quality Management This document provides a framework that organisations can follow, and that can be used as the structure for market or sector specific schemes. It is intended to be a process certification.</p> <p>The goal of this document is to have comparable attestations or certifications worldwide.</p>	\$103.00
1400920	<p>ISO/TS 19303-1:2020 Graphic technology - Guidelines for schema writers - Part 1: Packaging printing This document provides recommended guidelines for the evaluation of colour reproduction capability in the printing of packaging materials. It provides a basis for the development of colour certification schemes by individual brand owners and/or industry associations and for the evaluation of printed results against those schemes.</p> <p>Because the package printing supply chain involves multiple partners, both the potential impact of each partner on the overall colour control and the individual responsibilities of each partner are identified in this document. The unique requirements of the individual reproduction processes and their impact on colour reproduction are also identified.</p>	\$162
1400821	<p>ISO 20616-1:2021 Graphic technology - File format for quality control and metadata - Part 1: Print requirements eXchange (PRX) This document specifies an extensible file format in conformity with W3C Extensible Markup Language (XML) 1.0, for the exchange of print quality requirements data and metadata between print quality control applications including, but not limited to, print quality management systems.</p> <p>This document is not intended for automating the loading of print requirement goals into the quality control systems employed by print quality service providers.</p>	\$175.00
1400520	<p>ISO 20616-2:2020 Graphic Technology - File Format For Quality Control And Metadata - Part 2: Print Quality EXchange (PQX) This document specifies an extensible file format in conformity with W3C Extensible Markup Language (XML) 1.0, for the exchange of print quality data and metadata between quality control applications including but not limited to colour measurement, process control and quality management systems.</p>	\$162.00

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
	<p>ISO 24487:2023 Graphic technology - Processless lithographic plates - Part 1: Evaluation methods for characteristics and performance This document applies to processless lithographic plates and specifies evaluation methods for lithographic plate characteristics, on-press development performance, usability and print image quality. It specifies measurement conditions for materials and equipment and provides guidelines for the selection of suitable processless lithographic plates by a printing organization and requirements for comparative assessment tests. The assessment of waterless lithographic plates is out of scope of this document. Some of these methods can be used for the evaluation of all classes of lithographic plate. This document specifies measurement conditions for materials and equipment and provides guidelines for the selection of suitable processless lithographic plates by a printing organization and requirements for comparative assessment tests.</p>	\$210
	<p style="text-align: center;">IEC Standards <i>(These publications are also available from ISO/IEC member bodies)</i></p>	
1500287	<p>IEC 60050-845:1987, Ed. 1.0 (CIE Publication 17.4) [formerly IEC 50(845)] International Electromagnetic Vocabulary-Chapter 845: Lighting 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.</p>	\$410
1500399	<p>IEC 61966-2-1:1999, Ed. 1.0 Multimedia systems and equipment – Colour measurement and management – Part 2-1: Colour management – Default RGB colour space – sRGB 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.</p>	\$199
1501003	<p>IEC 61966-2-1, Amd1, Ed. 1.0:2003 Multimedia systems and equipment – Colour measurement and management – Part 2-1: Colour management – Default RGB colour space – sRGB, Amendment 1 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.</p>	\$82
1500800	<p>IEC 61966-3:2000, Ed. 1.0 Multimedia systems and equipment – Colour measurement and management – Part 3: Equipment using cathode ray tubes 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>	\$235
1500900	<p>IEC 61966-4:2000, Ed. 1.0 Multimedia systems and equipment – Colour measurement and management – Part 4: Equipment using liquid crystal display panels 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>	\$235
1500109	<p>IEC 61966-5:2008, Ed. 2.0 Multimedia systems and equipment – Colour measurement and management – Part 5: Equipment using plasma display panels 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>	\$235
1500206	<p>IEC 61966-7-1:2006, Ed. 2.0 Multimedia systems and equipment - Colour measurement and management - Part 7-1: Colour printers - Reflective prints - RGB inputs 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>	\$281

PRODUCT CODE	STANDARD DESCRIPTION	PRICE
1500501	<p>IEC 61966-8:2001, Ed. 1.0 Multimedia systems and equipment - Colour measurement and management - Part 8: Multimedia colour scanners 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>	\$235
1500603	<p>IEC 61966-9:2003, Ed. 2.0 Multimedia systems and equipment - Colour measurement and management - Part 9: Digital cameras 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>	\$235