INTERNATIONAL STANDARD

ISO 16762

First edition
2016-11-15

Graphic technology — Post-press — General requirements for transfer, handling and storage

Technologie graphique — Post-presse — Exigences générales pour le transfert. la manipulation et le stockage

Reference number
ISO 16762:2016(E)

© ISO 2016



COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword ..... **v**

Introduction ..... **vi**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 Requirements **3**
4.1 Tolerances 3
4.2 Job information requirements (job ticket) 3
4.3 Incoming goods inspection 4
4.3.1 General 4
4.3.2 Presentation 4
4.3.3 Package identification 4
4.3.4 Storage and handling 4
4.3.5 Temperature and humidity adaption 4
4.3.6 Size and squareness tolerance (sheets) 4
4.4 Intermediate product requirements 5
4.4.1 Presentation 5
4.4.2 Grain direction 5
4.4.3 Size and squareness tolerance 6
4.4.4 Marks 6
4.4.5 Registration 7
4.4.6 Layout 8
4.5 Processing requirements 8
4.5.1 Temperature and humidity adaptation 8
4.5.2 Processing information 8
4.5.3 Identification on the product 9
4.5.4 Envelope or foil enclosing 9
4.5.5 Static electricity 9
4.5.6 Allowances 9
4.5.7 Quality control 9

5 Operating and testing environments **10**
5.1 Temperature and humidity 10
5.1.1 General 10
5.1.2 Device 10
5.1.3 Laboratory test environment 10
5.1.4 Customer-specified environment 10
5.1.5 General controlled workshop/factory condition 10
5.1.6 Ambient condition 10
5.2 Air disruption 11
5.3 Illumination 11
5.4 Cleanness 11

6 Inspection and measurement requirements **11**
6.1 Check and inspection frequency 11
6.1.1 Items to be checked 11
6.1.2 Inspection frequency 11
6.2 Measurement 11
6.2.1 General 11
6.2.2 Temperature and humidity 11
6.2.3 Records 12

7 Packing, storage and transportation requirements **12**
7.1 Packing 12
7.1.1 Packing of intermediate products 12

© ISO 2016 – All rights reserved

7.1.2 Packing of final products 13
7.2 Storage 13
7.3 Transportation 13
Annex A (informative) **Arrangement of control elements and printing finishing information** **14**
Annex B (informative) **Sampling inspection** **16**
Bibliography **17**

 © ISO 2016 – All rights reserved

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 130, *Graphic technology.*

© ISO 2016 – All rights reserved

Introduction

In order to manufacture printed products of good quality, prepress, print and post-press departments need to cooperate effectively. Different consecutive post-press operations need to be arranged accordingly. This document describes general operations to ensure quality of raw materials, intermediate and final products.

Included in this document are the common requirements for various post-press processes. Rather than repeating these requirements within each post-press standard, this document acts as a common reference for all aspects involving paper-based products. There are other standards that describe requirements that are specific to a particular process — such as book binding (ISO 16763). This document is not intended to be exclusive and the process-specific requirements shall also be followed in order to achieve complete quality control. This document can be used independently and can also be used in conjunction with other associated standards.

The areas that this document covers are

— process requirements:

  a) job information requirements,

  b) incoming goods inspection,

  c) intermediate product requirements, and

  d) processing requirements,

— operating and testing environments,

— inspection and measurement requirements, and

— packing, storage and transportation requirements.

The post-press processes to which this document is applicable include

— laminating and varnishing,

— cutting (both sheet and web),

— creasing and folding (both sheet and web),

— gathering and collating,

— binding,

— trimming,

— hot foil stamping,

— die cutting,

— gluing,

— inserting, and

— perforating.

© ISO 2016 – All rights reserved

Graphic technology — Post-press — General requirements for transfer, handling and storage

1 Scope

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.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 186, *Paper and board — Sampling to determine average quality*

ISO 187, *Paper, board and pulps — Standard atmosphere for conditioning and testing and procedure for monitoring the atmosphere and conditioning of samples*

ISO 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot–by-lot inspection*

ISO 8995-1, *Lighting of work places — Part1: Indoor*

ISO 10012, *Measurement management systems — Requirements for measurement process and measuring equipment*

ISO 12647-2, *Graphic technology — Process control for the production of half-tone colour separations, proof and production prints — Part 2: Offset lithographic processes*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

3.1
acceptance quality limit
AQL
quality level that is the worst tolerable process average when a continuing series of lots is submitted for acceptance sampling

[SOURCE: ISO 2859-1:1999, 3.1.26]

3.2
bottling
angle-wise repositioning of pages to compensate for substrate thickness influences during multiple folding

© ISO 2016 – All rights reserved

3.3
carboning
transfer of ink from a printed to an unprinted area by pressure or micro-friction

3.4
collating marks
symbols printed on the folded edges of signatures as a means of indicating the correct collating or gathering sequence

3.5
folding marks
symbols printed on the margins of a page to guide the folding process

3.6
front to back register
accuracy of the printed components of each page relative to each other from the front and the back

3.7
gutter
space between two adjacent pages or blocks of pages that when folded will either be trimmed off or form the part of the page that connects to the spine

3.8
hickie
small mark that is caused by dust or debris on the printing blanket resulting in a breakup of the printed image

Note 1 to entry: The removal of such debris is achieved by blanket washing or "hickie picking" with a special tool.

3.9
imposition
positioning of pages on a press sheet in such a manner that, when the sheet is folded into a signature and cut, the pages will be in the correct sequence

3.10
intermediate products
unfinished printed products to be processed in subsequent process(es)

3.11
lead edge
edge that forms the reference point for all processes

Note 1 to entry: Also known as leading edge or *side lay* (3.17).

3.12
log
method of bundling printed signatures in such a way that they can be stored and loaded in large quantities onto a specific machine

3.13
materials in process
products or materials that have had processes applied to them but are still awaiting further additional processes to be applied — for example packing, varnishing

3.14
raw materials
materials that are to be used as part of the post-press operation — for example adhesives, wire and thread.

3.15
set off
unwanted transfer of ink from one printed sheet to another

© ISO 2016 – All rights reserved

3.16
shingling
horizontal and/or vertical repositioning of pages to compensate substrate thickness influences during multiple folding

Note 1 to entry: This is also called “creep compensation”.

3.17
side lay
mark that indicates the reference edge of a sheet that printing and finishing equipment uses to enable consistent registration of the product

3.18
smudging
mark with no particular shape that is caused by accidental transfer of ink or dirt

3.19
squareness tolerance
allowable difference in length between the two diagonals of a rectangle and between the lengths of opposite edges

3.20
version mark
mark or barcode printed on the spine or margin of a book signature or at the glue flap of a box to indicate different versions of books or boxes

3.21
waviness
effect of paper or other materials curving alternately in opposite directions to make a wave-shaped form

4 Requirements

4.1 Tolerances

If several successive processes are requesting target values with tolerances, the product tolerances are as large as the sum of the tolerances of the individual processes.

The minimum acceptance level for each intermediate product is 95 % of the sample.

4.2 Job information requirements (job ticket)

Individual requirements and limitations of post-press companies shall be communicated to the printer and/or the prepress services and/or the customer and/or the designer.

The minimum information required for post-press is

— job title,

— job reference,

— size,

— quantity,

— delivery date,

— production details,

— packing and delivery requirements,

© ISO 2016 – All rights reserved