TECHNICAL SPECIFICATION CONCERNING THE PREPARATION OF INITIAL MATERIALS FOR PRINTING, BASIC QUALITY GUIDELINES AND REQUIRED STANDARDS FOR DATABASES

OF 27.08.2026

ATTACHMENT TO GENERAL CONDITIONS FOR PROCESSING OF ORDERS FOR PRODUCTION

OF PRINTED MATERIALS BY PROGRAFIX SP. Z O.O.

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1. Scope of document

This document determines a technical specification of materials delivered to Prografix Sp. z o. o. as well as general quality guidelines of printed materials produced by Prografix Sp. z o. o., parameters controlled during individual processes and criteria of their acceptance, and standards for data bases.

2. Definitions

GCPO:	The present General Conditions for Processing Orders for the Production of Printed Materials by Prografix Sp. z o.o.
ORDERING PARTY:	The entity which has placed an order to the Contractor for the production of printed materials.
CONTRACTOR:	**"PROGRAFIX" Sp. o.o.** with its registered office in Dębica, ul. Drogowców 16, 39-200 Dębica, entered into the register of entrepreneurs by the District Court in Rzeszów, 12th Commercial Division, KRS number 0000125459, NIP 876-21-36-701, REGON 691679657.
Printed materials:	Printed materials shall mean the materials printed on paper or cardboard in offset or digital printing, in particular: leaflets, posters, brochures, catalogues and other advertising and promotional materials, printed by the CONTRACTOR for the ORDERING PARTY.
Initial materials:	Initial materials shall mean digital files in PDF format, containing the substance of Printed materials, on the basis of which the CONTRACTOR will print Printed materials.
Model materials	Materials, which serves as a colour guide in the printing process. Model material can be certified proof or print proof, accepted and signed by the ORDERING PARTY.
Colour sample:	A colour sample shall mean a copy printed by the CONTRACTOR based on Initial materials or sent to the CONTRACTOR by the ORDERING PARTY.
Proof certification	Proof certification shall mean a process of controlling the accuracy of proof production, which consists in determining the colour discrepancy between the values measured on the control strip featured in the proof and end values. The end values are determined with regard to the ICC profile used in the proof production. Proof certification may take place at the ORDERING PARTY's or at the CONTRACTOR's.
ICC profile	Digital file containing colour characteristics of a given device. That profile meets requirements specified in ICC Specification.

Certified Proof (Colour Design)	Model material which simulates the real effect of printing using the technique concerned, with appended results of measurement of the ΔE colour difference. The colour difference may not exceed the tolerance specified in ISO 12647-2.
Means of communication:	Means of distance communication in a form of the Internet public network (for example, electronic mail, InSite System, ftp account - made available by the CONTRACTOR, other portals for data transfer, agreed in the Order).

Bleed	Area of an image extending to the crop marks defining a net page size. The lack of bleed causes defect generation during bookbinding operations.
Trim box	Area defined in PDF format determining a net page size (after printing and cutting; trim box). The document delivered to the CONTRACTOR must have Trim box defined. Its setting may be verified in the program Adobe Acrobat Professional.
Spread	Two neighbouring pages after opening of the bound print material.
Personal Data	The term "PERSONAL DATA" shall mean any information concerning an identified or possible to identify natural person, such as, in particular, sex, name, surname, street, house number, postal code, city as well as any other data of personal character.
Personal Data Collection	The term "PERSONAL DATA COLLECTION" shall mean any structured set of data of personal character, available according to specified criteria, irrespective whether it is scattered or divided functionally, made available to the CONTRACTOR by the ORDERING PARTY in order for the CONTRACTOR to perform obligations resulting from an Order for the Production of Printed Materials
Personal Data Processing	The term "PERSONAL DATA PROCESSING" shall mean any operations on personal data, performed by the CONTRACTOR in order to perform the obligations resulting from an Order for the Production of Printed Materials and within the scope specified in TEPPD, in particular, collecting, storing, processing, modifying, making available and deleting personal data, primarily those operations which are performed in IT systems.

3. Technical specification of preparing initial materials for printing

3.1 The manner of preparing materials for printing

3.1.1 Parameters of production files

- Materials for printing should be prepared in the form of composite files in the PDF 1.4 or higher.
- Files should include embedded fonts.
- Every page should be generated as a separate page and have **symmetrical** bleed of at least 3 mm on all sides. Spreads are not acceptable. In case of brochures, the bleed should be 4-5 mm.
- Resolution of pictures (colour and greyscale) in digital files:
    - minimum: 250 dpi,
    - optimum: 300 dpi,
- All graphic elements of a page should be prepared in the **CMYK colour space**. Graphic elements and pictures prepared in other colour spaces (e.g. RGB) are automatically converted to the CMYK space using the ”icc iso coated v2_300_eci” profile, but the CONTRACTOR is not responsible for the results of the conversion.
  All additional colours (spot colors, e.g. Pantone) which have not been specified in the order are converted to process colours.
- All **additional colours** (for example Pantone) as well as spot varnish must be specified in the order and marked in the file.
  THE ORDERING PARTY should notify the CONTRACTOR about the need to order Pantone inks at least 48 hours before the time of release of final materials for printing.
- If a **die** or **spot varnish** is going to be used in the publication, this should be marked in the material with an additional colour (spot colour) with a background overprint attribute.
- The die must be prepared as an outline (stroke) and cutter, creasing and perforation lines should be distinguished. The minimum distances between lines (cutters, creasing lines) are 3 mm.
- A mask for varnish should be a vector object with 100% of saturation. The minimum thickness of varnished element is 4 pt.
- In case of gluing process a knockout at place of planned glue application should be made.
- The size of the **trim box** must be consistent with the net format of the page.
- Important text of graphic elements should be placed at a distance of not less than 5 mm from the cutting line.
- Graphics and letterings should not be let several mm in an adjacent page because of tolerance of folding and binding.
- The minimum **size of a type printed in more than 1 colour or in reversed printing**[1] should be:
    - For monoline typefaces 8 pt.,
    - For two-element typefaces 10 pt.
- The smallest acceptable thickness of a line shall be 0.2 pt. Thinner lines shall be thickened up to 0.2 pt.
- Reverse printed lines or lines in more than one colour should not be thinner than 0.5 pt.

[1] For reverse printing on a dark background, it is recommended, if possible, that a contour of 0.1 pt in single colour (negative trapping) similar to the colour of the background be created for a character(e.g. a black (K) contour for a text in reversed printing on the rich black background).

- In order to obtain richer black depth and avoid picking effect in solid areas, black should be generated from 4 colours. Recommended formulas are C 40, M 40, Y 0, K 100 for coated papers (MWC, LWC).
- Black texts smaller than or equal to 24 pt on the colour background should be **overprinted**.
- Black texts greater than 24 pt should be generated from 4 colours C40 M40, Y 0 and K100.
- Black texts on metallic colours are not overprinted; a knockout with K or CMYK spreading towards spot colour should be used. All the graphic elements overprinted on spot colours (e.g. shadow) must be also knocked out and will be analogically trapped.
  In case of use of metallic inks on other graphic objects, consultation with the CONTRACTOR is required.
- Contractor automatically applies **trapping** for composite files of 0.1 pt in order to avoid inaccuracy of colour overlay adjustment.
- The ORDERING PARTY should include a mock-up or submit a comprehensive performance specification for materials, which do not contain pagination or for non-standard materials. If the mock-up or comprehensive performance specification is not submitted, the CONTRACTOR finds that a sequence of pages in the production files determines an order of pages of finished printed material.

The delivery of a file which is not consistent with the above parameters shall mean the acceptance of a lower quality of printed materials.

Before sending the materials to the printing house it is recommended that the files be checked (Preflight) using an appropriate program, e.g. Enfocus Pitstop or Adobe Acrobat Professional, in order to detect the most frequent mistakes.

The CONTRACTOR makes available pre-defined PDF export settings for two print media (chalk overlay paper, offset print paper) and the preinspection profile for InDesign.

The date of delivery of production files shall be the date of delivery of complete materials which do not require any corrections.

3.1.2 Graphic parameters of page layout

Saddle stitched binding / insides:

- PDF file may be generated without crop marks or with crop marks, but with consideration for the marks being shifted outside of the bleed.
- required bleeds — min. 4-5 mm around a page — also from internal (spine). The bleeds must be greater in connection with using creep technology (pulling pages in, i.e. pushing middle sheets in relation to external sheets) by a creep value. The thicker paper and larger number of pages, the greater pushing.
- inside margins: internal (spine) — for important printed elements or letterings – 10 mm, other (top, bottom, external) — for important printed elements (e.g. folio, register) – 5 mm.
- centrefold illustration (passing “from page to page”) — minimum size of transfer area is 10 mm.
- for the sake of print aesthetics and tolerance of folding and binding one text line with small font size should not be placed on adjacent columns, furthermore, dividing of text between the columns in the middle of a word is impermissible.

Saddle stitched binding / covers:

- required bleeds — 4-5 mm.
- margins for important printed elements or letterings not less than 5 mm in relation to the crop mark.
- page order in a file must include the CONTRACTOR's recommendations for a specific case.

Perforation:

- parallel to the publication spine, made during folding sheets — a minimum distance from the fold (spine) line is 10-12 mm.
- parallel to the publication spine, made from a die — a minimum distance from the spine line is 10-12 mm.
- perpendicular to the publication spine — can cross the spine.

Cutting self-adhesive paper (labels):

- puch with a large number of especially small elements — shapes must be redrawn by the technologist in consultaion with the die manufacturer and proposed simplifications must be approved by the ORDERING PARTY prior to production,
- cuts at a distance from the spine not less than 10 mm with saddle stitched binding and not less than 12-15 mm with glued binding in order to avoid peeling off elements when opening a copy.

  In special cases the incdreased numbrer of bridges (fasteners, haltpoints) holding a element, threrefore, preventing it later from peeling off, are used.

Registers:

- In case of the publication with registers prior contact with the CONTRACTOR is recommended.

Glued binding:

- During side gluing some of graphics on the second and third page of the cover and on the first and last page of the inside are cut out (glued up at a width of 3-4 mm from the spine side).
- Because stamping (creasing) is made on the cover from the spine side, the letterings should be away min. 7 mm from the spine. The standard setting of the creasing line to the spine edge is 5-7 mm, which causes cover bending within stamping area on covers with basis weight of greater than 200 g, so that the elements at the spine beyond folding may not be visible.

3.1.3 Language versions (Versioning)

In case of many different language versions of a product the files should be prepared in accordance with the following guidelines:

- separate PDF file, including variable elements (e.g. texts) in K colour with given overprint parameter is needed for each version,
- base (invariable element for all versions) must include all repetitive elements (e.g. pictures) for all versions in CMYK.
- all files must have the same number of pages and Trimboxes must be uniformlny defined.

- names of files must clearly define their application, e.g.: “catalogue_PL”; “catalogue_DE”; “catalogue_Base”.

3.1.4 Used settings of CtP imaging parameters

The CONTRACTOR uses the following default parameters:
- Conventional screen with the following screen angles:
  C - 165°, M - 105°, Y - 0°, K - 45°
- Shape of screen point: elliptical.
- Imaging resolution: 2400 dpi.
- Ruling - depending on the quality of paper from 150 to 200 lpi. Usually 150 lpi for non-coated paper and 175 lpi for coated paper.

The CONTRACTOR also offers imaging of production forms with stochastic screen of the minimum dot size of 20 µm and a hybrid raster.
The use of a screen of different parameters should be agreed with an employee handling an order on behalf of the CONTRACTOR beforehand and specified in the order.

3.2 Approval of printing and model materials

- All the materials for printing at the CONTRACTOR’s must be clearly confirmed (approved/ accepted).
- The substantive acceptance is made by the ORDERING PARTY on the basis of delivered PDF files or verification of imposition print.
- Prografix Prepress Portal platform is a preferred way of sending and accepting materials for printings.
- In the case of willingness to replace a file / files in allready accepted materials, this fact should be absolutly reported to the employee of the Customer Service Office, acting on behalf of the CONTRACTOR. The materials are forwarded for printing immediately after acceptance and the replacement of accepted materials is associated with additinal costs.
- If the ORDERING PARTY prefers to approve printing on the basis of a mock-up (digital imposition print), the ORDERING PARTY should keep the received prints for the purposes of possible complaints related to printing. The approval of the received prints should be send by e-mail or via InSite.
- It is also possible to accept the files for printing by the ORDERING PARTY sent by e-mail/ placed on the FTP server or in the cloud; however, in this case, the CONTRACTOR WYKONAWCA does not take responsibility for file screening errors in the print preparation process.
- It is recommended to add a certified proof to each page. The contract proofs should be prepared after the last correction of files submitted for printing. The following data: file name, page number, date proof performance and name of the used ICC profile should be included on each contract proof. Furthermore, a Ugra/FOGRA control strip must be placed on every certified proof as well. The lack of description or control strip rules out the use of certified proof as a model material at the CONTRACTOR’s. The certified proof should be signed by the ORDERING PARTY.
- The ORDERING PARTY may accept materials during printing process at the CONTRACTOR’s. When the print is accepted by the ORDERING PARTY, the signature accepted and signed by the ORDERING PARTY becomes a model material for the offset operator.
- The prints from previous editions are not contract proofs; they may serve only as a reference point for the offset operator.

- If the ORDERING PARTY does not deliver the contract proofs, the print will be carried out according to Lab coordinated of primary colours and dot gain specified by ISO 12647-2 standard for a given paper grade.
- The raw material selected by the ORDERING PARTY affects a colour scheme of the print. If whiteness of raw material does not meet assumptions of colour scheme specified in ISO 12647-2, the CONTRACTOR reserves the right of possible colour differences.
- The colours are also affected by product refining, such as: UV varnish, dispersion varnish, soft touch varnish, shine / matt foil.
- In conjunction with the difficulty of correct colour reproduction on non-standard papers (e. g. pre-coloured papers) the CONTRACTOR recommends personal acceptance of the print results. The difficulty in recreating colours also emerges if PANTONE colours are used if CMYK colours are printed first.

3.3 The manner of delivering digital materials

3.3.1 Prografix Prepress Portal

The files for printing shall be delivered via the Internet using Prografix Prepress Portal platform and the tools included in it. The service is available at http://pp.prografix.pl

The data allowing access, i.e. a login (user name) and a password, are provided by the employee of the Customer Service assigned to your company.
In order to create a new system account, provide the customer service centre employee for Your company the following data:

– name and surname of the person for whom an account is supposed to be created,
– company name,
– e-mail address and telephone number.

It is possible to log in the Insite portal using a web browser.

3.3.2 FTP Server

Digital materials may also be delivered using FTP (File Transfer Protocol) to ftp://ftp.prografix.pl
The data allowing to access the server, i.e. a login (user name) and a password, shall be provided by the employee of the Customer Service assigned to your company.

3.3.3 Electronic mail

Files may be sent by e-mail to an employee of Customer Service assigned to your company.
A maximum size of an e-mail with attachments is 15 MB.

3.4 Miscellaneous notes on the preparation of final materials

3.4.1

A failure to observe the deadline for providing the production files may result in a delay in the expedition of finished products, for which the printing house shall not be responsible.

3.4.2

THE CONTRACTOR VERIFIES THE CORRECTNESS OF THE MATERIALS PROVIDED BY THE ORDERING PARTY EACH TIME; HOWEVER, THE CONTRACTOR DOES NOT GUARANTEE THAT ALL ERRORS AND INCONSISTENCIES AS COMPARED TO THE SPECIFICATION ABOVE WILL BE FOUND.

3.4.3

THE CONTRACTOR DOES NOT TAKE RESPONSIBILITY FOR THE CORRECTNESS OF THE TRANSFER OF FILES TO THE PRODUCTION FORMS, PREPARED AGAINST THE GUIDELINES INCLUDED IN THIS SPECIFICATION AND CONTAINING OBJECTS IMPORTED DIRECTLY OR INDIRECTLY FROM THE CORELDRAW OR AUTOCAD PROGRAM.

The CONTRACTOR is not liable for errors due to erroneous preparation of the materials for printing, e. g.:

- usage of transparency,
- incorrect page number order,
- incorrect placement of unprinted pages,
- incorrect preparation of spreads inside,
- the placement of objects and texts,
- colour reproduction in case of printing without colour references,
- colour reproduction in case of use of colour materials on black-printed pages,
- colour reproduction and the final effect in case of wrong material choice,
- colour differences due to the use of the RGB colour space in an overlay file,
- spelling, grammar and editing errors in the content,
- the project aesthetics,
- usage of low-resolution graphics,
- no reinforcement of black full surfaces by other colours,
- black text objects separated into four colours.

3.4.4

ALL THE ADDITIONAL OPERATIONS TO ADAPT THE FILES TO COMPLIANCE WITH THE SPECIFICATION AND ALL THE MODIFICATIONS MADE BY THE CONTRACTOR AT THE ORDERING PARTY'S REQUEST ARE CONSIDERED ADDITIONAL PAID SERVICE[2].

[2] According to the printed material cost specified in the Prografix pricelist.

4. Basic quality production guidelines

4.1 General information

The final product should be made in accordance with the contract, requirements submitted by the ORDERING PARTY and printing or bookbinding standards.

The final deviation of printing materials from their specification is a sum of acceptable deviations at individual production processes.

The following items set out parameter tolerances for individual processes arising from natural phenomena occurring within production processes.

4.2 Printing process

4.2.1 Certified proof (Colour design)

Information on requirements for Certified proof is specified in § 4 of the GCPO.

4.2.2 Acceptance of Printing proof (Colour sample) by the ORDERING PARTY

The acceptance of the Printing proof by the ORDERING PARTY takes place at the offset printing machine by prior appointment determined with the employee of the Customer Service Office, acting on behalf of the CONTRACTOR. The CONTRACTOR may refuse the possibility of acceptance at the printing machine, then, the acceptance takes place in the office building within the office area, under a dedicated printing illumination, which is defined in § 4 point 4 of the GCPO.

The offset operator corrects the values included in the files as requested by the ORDERING PARTY; however, moving in ΔE not exceeding 5 units, according to ISO 12647-2:2013.

The ORDERING PARTY accepts and signs at least 2 signatures, which constitute Colour sample for the offset operator.

Additional information regarding the acceptance of the printed sheet can be found in §4 of GCPO.

4.2.3 Colours in Offset Printing

Chart 1 Tolerance of ΔE parameter in offset printing:

Parameter	Acceptable	Unacceptable
ΔE	≤5	>5

Measurement conditions in the process of printing:
- black background,
- illuminant D50, 0.45/ 45.0
- no UV filters,
- no polarizing filter,
- MO,

- XRGA.

The compliance of apla (Large/ undercoat) and raster color tones are compatible with with ISO 12647-2:2013, CURVE A, CURVE B.

Additional information regarding colours in offset printing can be found in §4 of GCPO.

4.2.4 Colour registration

Chart 2 Permissible deviation of register of colours printed consecutively one after another**:**

Acceptable	Unacceptable
≤0,16 mm	>0,16 mm

Due to the automatic registration systems used on printing machines and the manner of their operation, the afore-mentioned colour register tolerance may be temporarily exceeded.

4.2.5 Page arrangement

Chart 3 Permissible arrangement deviation of pages in the printed sheet from one another:

Acceptable	Unacceptable
≤1mm	>1 mm

4.2.6 Printing with additional Pantone colours

During printing the proof is subject to densitometric control of colour intensity and it is compared against the current Pantone scale.

4.2.7 Perforation during printing

Chart 4 Arrangement of perforation applied in line with printing for longitudinal and lateral perforation:

Acceptable	Unacceptable
≤ 2mm	>2 mm

4.2.8 Printing with varnishes

The offset, dispersion, UV varnish layer is considered correct, when there are no unvarnished spots on the surface intended for varnishing.

Due to the offset printing specificity the process may be accompanied by fluting. The CONTRACTOR will make all possible efforts to minimize this phenomenon; however, the CONTRACTOR cannot guarantee its complete elimination.

Chart 5 **Permissible deviation of picture and varnish register:**

Acceptable	Unacceptable
≤ 1.0 mm	>1.0 mm

4.2.9 Page arrangement on colour digital print

Chart 6 Permissible deviation of sheet pages

Acceptable	Unacceptable
≤ 1.5 mm	>1.5 mm

4.3 Cutting process

Chart 7 Permissible deviation when cutting sheets into single pieces:

Acceptable	Unacceptable
≤ 1.0 mm	>1.0 mm

4.4 Folding process

4.4.1 Deviation of a fold line from the expected position (at every fold).

Chart 8 Permissible deviation of pages in signature from one another and between themselves:

	Acceptable	Unacceptable
Signature - 4 pages without creasing	≤ 0.5 mm	>0.5 mm
Signature - 4 pages with creasing	≤1.0 mm	>1.0 mm
Signature - 8 pages	≤ 1.5 mm	>1.5 mm
Signature - 12 pages	≤ 1.5 mm	>1.5 mm
Signature - 16 pages	≤ 1.5 mm	>1.5 mm

4.4.2

Chart 9 Deviation of perforation line from nominal location:

Acceptable	Unacceptable
≤ 1.0 mm	1.0 mm

4.4.3

During the process of folding the phenomena resulting among other things from assumed paper basis weights, technology (e.g.: no creasing, strong ink coverage, amount of the folds exceeding 4 panels in the parallel folds) can appear:

- ink splintering, cracking in spine, when creasing is not used,
- UV varnish cracking at the spine line,
- use of cardboard for production with glue can result in insufficiently product gluing at a distance of several millimetres from the spine line.
- paper crimping within the spine line during folding into cross spine lines.

Folding defects that make a product unacceptable include paper creases/ wrinkles making the content or graphic design illegible not due to natural phenomena of a given operation.

The CONTRACTOR recommends the use of creasing, which reduces a risk of cracking at bending (folding) - ink splintering, in particular, for paper with high basis weights, e.g. over 150 g/m^2.

The CONTRACTOR will make all possible efforts to minimize this phenomenon; however, the CONTRACTOR cannot guarantee its complete elimination.

4.5 Gluing in the folding process

Chart 10 Deviation of gluing line and length from nominal location:

Acceptable	Unacceptable
≤ 2.0 mm	>2.0 mm

If paper with low basis weight is used, a place of gluing may be accompanied by fluting. The CONTRACTOR will make all possible efforts to minimize this phenomenon; however, the CONTRACTOR cannot guarantee its complete elimination.

4.5.1 Deviation of the Position of the Inserted Element from the Expected Placement

Table 10.a Permissible Deviation of the Position of the Inserted Element (e.g. with hot-melt adhesive or self-adhesive label) from the expected placement along each edge: up to ±5.0 mm

Acceptable	Unacceptable
≤ 5,0 mm	>5,0 mm

Note: The inserted element may also be positioned at an angle, as long as it remains within the allowable dimensional tolerance.

THE FINAL DEVIAITIONS OF OPERATIONS ARE ALSO AFFECTED BY PERMISSIBLE DEVIATIONS RESULTING FROM PRECEDING PROCESSES, SUCH AS, E.G.: PRINTING, CUTTING.

4.6 Saddle stitched binding

4.6.1

Properly performed saddle stitched binding is characterised by the fact that:

- staples firmly hold the joint of signatures,
- bending of staples does not cause burst of signatures inside the product,
- the number of staples corresponds to the order specification,
- the total length of staples does not cause overlapping of edges,
- the format of the finished product corresponds to the order specification[3].

4.6.2

[3] Taking tolerances specified by the CONTRACTOR into account.

Chart 11 Permissible deviation in saddle stitched binding from the order:

	Tolerance
Position of staple in the direction perpendicular to the spine line	+/- 0.5 mm
Position of staple in the direction parallel to the spine line	+/- 2 mm
Net size of product against the order	+/- 2 mm
Rectangularity of product	+/- 1 mm

4.6.3

In case of loop stitched binding, the shift of loop staples, causing increase or decrease of distance between staples, preventing them from freely fitting into a file, shall be deemed unacceptable.

The type, spacing and number of staples should be specified by the ORDERING PARTY prior to performance of the order by the CONTRACTOR.

THE TOLERANCE OF SADDLE STITCHED BINDING CONSISTS OF THE SUM OF DEVIATIONS FROM PREVIOUS PROCESSES AS WELL AS SHRINKING OF PAPER AND HUMIDITY DIFFERENCE.

4.7 Glued paperback cover

4.7.1

A correctly executed glued paperback cover is characterised by:
- the adhesive permanently binding the pages,
- the ready product format being in line with the order[2].

4.7.2

Table 12 Allowable divergences for brochure bindings against the order.

Parameter	**Tolerances**
Side gluing	+/- 1 mm
Back width	+/- 1.5 mm
Net product format against order	+/- 1 mm
Product rectangularity	+/- 1 mm

4.7.3

The type of adhesive (e. g. PUR, EVA) should be indicated by the ORDERING PARTY before the CONTRACTOR commences with the order execution.

THE TOLERANCES IN THE GLUED FORM BINDING PROCESS ARE COMPOSED OF THE SUM TOTAL OF DIVERGENCES OF UPSTREAM PROCESSES.

4.8 Thread sewn binding

4.8.1

Criteria for incorrectly performed thread sewing process:

- too tight thread tension – the spine is rounded inwards,
- too loose thread tension – folds shift to each other,
- broken threads - the thread is torn between the folds.

4.9 Hardcover

4.9.1

The hardcover block is subject to the same standards as in glued and stitched binding.

Table 13 Acceptable deviations for a hardcover cover.

Acceptable	Unacceptable
Cover format deviation <=1mm	Cover format deviation >1mm
Cardboard thickness deviation <= 5%	Cardboard thickness deviation > 5%

Table 14 Acceptable deviations for a complete hardcover book.

Acceptable	Unacceptable
Deviation of the position of the block in the cover <=1mm	Deviation of the position of the block in the cover >1mm
Cardboard thickness deviation <= 1%	Cardboard thickness deviation > 1%

Since glue with water content during production, it may occur the effect of waving of the block and endpapers.

4.10 UV varnishing by sieve print

4.10.1

The minimum varnish line width is 1 mm.

4.10.2

The varnish type (e. g. select, 3d) should be indicated by the ORDERING PARTY before the CONTRACTOR commences with the order execution.

4.10.3

Table 15 Allowable UV varnish differences against reference sheet

Varnish type	**Tolerances**
UV apla	+/- 0.5 mm
UV select	+/- 1 mm
UV 3D	+/- 1.5 mm

4.10.4

Further unacceptable inconsistencies when varnishing:

- Unhardened varnish – sticky to the touch,
- Varnish not bound to the base – cracks if sheet is bent or can be removed without ink layer when rubbed.

4.10.5

Usage of UV-varnish:

- May cause colour tone changes,
- May crack at bend spots.

Usage of UV 3D varnish:

- May cause lack to stand out on reverse sheet side,
- In case of lines broader than 10 mm may cause the effect of the varnish collapsing from the edge to the centre

The Contractor does not recommend usage of 3D varnish on single large surface – as it may "collapse" and the effect will not be satisfactory; the larger the surface, the greater the risk of surface flaws.

3D varnish should not be used on cut lines, bends and at folds.

THE TOLERANCES IN THE UV VARNISHING PROCESS ARE THE SUM TOTAL OF DIVERGENCES OF UPSTREAM PROCESSES.

4.11 Die cutting process

It is necessary, in the die cutting process, to carry out fasteners allowing running a sheet after making cuts. The width and number of fasteners are determined by a shape of cut-out product and basis weight of paper.

Chart 16 Acceptable tolerance for perforation, creasing, and embossing for a longitudinal and transverse theoretical line:

Acceptable	Unacceptable
≤ 1.0 mm*	>1.0 mm

*at every line/ at every crease

4.12 Thermofoiling

Properly performed thermofoiling process is characterised by the completeness of components and lack of holes on the foil surface, however, thermofoiling defects (air bubbles) on the surface not greater than 2 mm are acceptable.

Because it is impossible to constantly control the correctness of foil application, it is assumed that products with defects in a form of holes on the foil may appear in the circulation.

Chart 17 Permissible tolerance of thermofoiling:

Acceptable	Unacceptable
≤ 5 % of circulation	>5 % of circulation

4.13 Drilling

Chart 18 Permissible drilling tolerance:

	Acceptable	Unacceptable
Shift against edge	≤ 1.0 mm	>1.0 mm
Hole spacing	≤ 1.0 mm	>1.0 mm

In case of drilling, the shift of holes, causing increase or decrease of distance between holes, preventing printed materials from freely fitting into a file, shall be deemed unacceptable.

The ORDERING PARTY should give the CONTRACTOR a diameter of holes, their spacing and position.

4.14 Insertion

Insertion defects that make a product unacceptable include:

- lack or excess of inserts;
- damaged inserts (unless the inserts have been provided and approved for use by the Client);
- insert location other than specified in the Order.

4.15 Inkjet

4.15.1
Table 19 Acceptable tolerance of an Inkjet imprint within the area intended for the imprint

Acceptable	Unacceptable
≤ 5 mm	> 5 mm

4.15.2
A properly made imprint is located and configured in accordance with the specification, and all its components are legible.

4.16 Sheet-to-sheet lamination

4.16.1

Chart 20 Permissible sheet-to-sheet laminating tolerance measured along the length/width of the sheet

Acceptable	Unacceptable
≤ 1mm	>1 mm

4.17 Shortages

In case of shortages or defective copies are found by the ORDERING PARTY, not exceeding the values specified in the table (Shortages), the complaint will not be considered.
The shortage found during the last production process, but within assumed standards, will be reported to the ORDERING PARTY before shipping along with an adjusted invoice including the shortage.

Chart 21 Shortages (completeness of circulation or number of shortages in circulation, including defective copies):

CIRCULATION	MAXIMUM DEVIATION
<50,000	>1.5%
>50,000 – 200,000	>1.0%
>200,000	>0.5%

The CONTRACTOR reserves the possibility to appear to be differences within +/-2 pieces in packing.

4.18 Product/ Supply Acceptance Criteria

4.18.1
Defects that make a product unacceptable include printing defects (such as specks, reflections, scratches) and/ or mechanical defects (such as creases) making the content and/ or graphic design illegible.

4.18.2
The delivery is considered consistent with the order when the circulation is delivered in whole or shortages are within tolerance specified in the table (Shortages).

5 Standard for Databases

Information required for sending a base to Prografix

5.1 Data base transfer protocol.

5.2 Accepted data base formats:

- *csv, txt* – text files
- *xls* – MS Excel files
- *xml* – xml files

- *dbf* – dbf files
- *other - after consultation*

5.3 Requirements concerning individual formats:

5.3.1 Text files – in CSV standard

The information is required concerning the sign which is a separator of individual fields, as well as the sign being a qualifier of the field which surrounds values in the text file.

Limitations:

a. For a base in which there is no text qualifier, it is not possible to use the declared separator inside the column (field).
Example:
Agreed separator - **;**
Correct base:
Jan;Kowalski;ul.Drogowców 16;39-200;Dębica
Jan;Kowalski;ul.Drogowców 16;39-200;Dębica
Jan;Kowalski;ul.Drogowców 16;39-200;Dębica

Incorrect base!:
Jan;Kowalski;ul.Drogowców**;** 16;39-200;Dębica
Jan;Kowalski;ul.Drogowców 16;39-200;Dębica
Jan;Kowalski;ul.Drogowców 16;39-200;Dębica
(the separator sign is inside the field with a simultaneous lack of text qualifier).

b. For a base with a text qualifier, it is not possible to use that qualifier inside a record field.

Example:
Agreed separator - **;**
Agreed qualifier – **„”**
Incorrect base!:
„Jan”;”Kowalski”;”ul.Drogowców **„**16”;”39-200”;”Dębica”
„Jan”;”Kowalski”;”ul.Drogowców 16”;”39-200”;”Dębica”
„Jan”;”Kowalski”;”ul.Drogowców 16”;”39-200”;”Dębica”
(text qualifier sign is inside the field covered by the same qualifier).

c. Each record must have the same number of fields separated by separators.

d. If text a qualifier is specified, each of the fields must included in it.

5.3.2 Microsoft Excel files – xls

a. Each cell in a spreadsheet should be formatted as a text field.
b. A spreadsheet should not contain any sorting, filtering operations etc.

5.3.3 Microsoft Access files – dbf

a. Required to provide information concerning encoding the signs necessary to export the data base correctly to a file in CSV standard.

XML files

A correct file shall contain:

a. An XML declaration, which must be placed at the very beginning of the file (cannot be preceded, for example, by a comment) and must have a version attribute (permissible values are 1.0 or 1.1) as well as optional attributes.
b. encoding – declares a set of signs used in the XML document, the default value is UTF-8 encoding in Unicode system.
c. Must contain exactly one main element, called a root element.
d. Each element must begin with an element beginning mark, f.e. <data> and end with the identical element end mark, for example </data>.
e. Names of elements may contain alphanumeric signs (letters a-z, A-Z as well as digits 0-9) and 3 punctuation marks (underscore _, hyphen -, full-stop).
f. Names of elements cannot begin with a hyphen -, full-stop or a digit. Besides, they cannot begin with xml, XML, xML etc. (irrespective of letter size).
g. Elements may be embedded and each element within another element we call "a child" of that element, and the element within which there are other elements we call "a parent" of those elements.
h. Each element may contain attributes which are defined in the element beginning mark, for example, the attribute of the element <customer age="45"> is the attribute named potw and value yes. The value of attributes are provided in inverted commas or apostrophes (single inverted commas).
i. Information which the element contains must be entered between the beginning and end mark of the element.
j. In data, attributes and names of element, certain signs cannot appear, for example, the “less than” sign (<), or ampersand . If, for example, we want to insert a “less than” sign (<), we enter the following sequence instead < ampersand – & greater-than (>) >.
k. In a XML document we can use comments which begin with: <!--, and end with: -->. Example: <!—This is a comment -->,.

Examplary file:

```
<?xml version='1.0' encoding='UTF-8'?>
<customers>
        <customer age=’45’>
                <name>imie</name>
                <surname>nazwisko</surname>
        </customer>
</customers>
```

5.4 Additional information:

5.4.1 For one campaign, data bases should have a clearly defined structure.
5.4.2 Multilingual bases should be exported in Unicode standard, which will eliminate erroneous encoding of signs.
5.4.3 The description of base heads must enable unambiguous identification of each of the base fields.

The above information will make it possible to prepare databases correctly. An in-

correctly prepared database will add to the costs of service.