



FORT DEARBORN COMPANY

Supplied File Specifications

Fort Dearborn Cut & Stack Label Production Facilities

Location	Phone
<i>United States</i>	
Elk Grove Village, IL <i>(files only)</i>	847.357.9500
Fort Worth, TX	817.625.1116
Fountain Inn, SC	864.862.1111
Niles, IL	773.774.4321
Sparks, NV	775.359.1703
St. Louis, MO	314.352.1300
Waukesha	262.832.6166
<i>Canada</i>	
Leamington, ON	519.326.2601
Laval, QC	450.680.5000

DT 003-0, Rev. 3.5
Revised April 17, 2018

**For the most recent version of these specifications, please see our website at www.fortdearborn.com.
It is the vendor's responsibility to verify they are using the latest version.**



File Transfer Protocol (FTP) Methods

CD-ROM / DVD	3
Email	3
Contact Information	3
CTP Ready Checklist	3

Offset CTP Ready File Specifications

CTP Ready Checklist	4
CTP Ready File Formats	5
Trapping	5
Bleed	5
Collators	5
UPC Specifications	6
2D / Data Matrix Codes	6
Color Bars	6
Print to Cut Tolerances	6
Proofs	6
Screen Angles	7
Type and Rules	7
Varnish	7
Synthetic Items	7
Clear Synthetic Items	7
Color Naming Specifications	7
Process and HiColour™ Colors	8
Pantone Colors	8
Acceptable Combination Spot Colors	8
Extra Colors	8
Other Colors	8
Preferred Common Can Size Examples	9
Lap and Dogear	9
Die Cut	10
Die Lines and Corner Marks	10
Collator Bars SOP	11
Collator Bars Instructions	11
Printing Process	12
Total Number of Colors in One Pass	12
Coatings	12
Substrates	12
Tone Value Increase (TVI)	12
Density	12
Colorimetric Ink Data	13
Ink Down Sequence	13
Color Measurement	13
Line Screen	13
Min / Max Printing Dot	13

HiColour™ Printing

HiColour™ Specifications	14
HiColour™ Guidelines	14
HiColour™ Specifications C1S Papers	15
HiColour™ Specifications Synthetic	16



File Transfer Protocol (FTP) Methods

1. Secure Transfer

With limitless methods available Fort Dearborn is open to the particular method your pre-press supplier prefers to transfer files. We can accept any open web methods that are free from username and password requirements and always prefer the method verifies when files are transferred successfully and download successfully. We can also certainly access outside FTP sites as long as we are supplied the proper credentials for access. We also have internal options, please contact your Sales rep for additional information.

CTP ready files, signed proofs (along with UPC scan verification slips) and checklists are to be sent to Fort Dearborn Company at 1530 Morse Avenue, Elk Grove Village, IL 60007, Attn: Data Integrity.

Email us at dataintegrity@fortdearborn.com to notify us after posting files or when sending signed proofs and checklists.

2. CD-ROM / DVD

When sending files on disk, please include a directory and a 100% printout of each item being supplied. If the files are supplied CTP, please add the checklist with each printout when submitting by disk. Package should contain file, signed proof, UPC verification and checklist for each item being sent.

3. Email

We recommend using email as a last resort for transferring files. This is due to file size limitations through email servers and (more importantly) the greater risk that file corruption can occur. This form of transfer is **not** recommended but if a file or group of files **MUST** be transferred via email, please place the file or files into a folder and then compress the folder to create a zipped file. Then send the zipped file as an attachment. This will help to prevent file corruption during the transfer.

4. Contact Information

All CTP ready files, checklists and signed proofs are to be sent to the attention of:

Fort Dearborn Company
Attn: Data Integrity
1530 Morse Avenue
Elk Grove Village, IL 60007

5. CTP Ready Checklist

To ensure efficient processing, a CTP File Checklist must be submitted with each file (see page 4). Each checklist must be filled out completely to ensure order integrity. A job tag can be used on **each file** instead of the checklist provided the same information is included on the job tag.

- **All proofs and taglines in files must include screening, substrate, size, packer, lap size and position.**
- A job will not be processed without a completed CTP Ready Checklist or job tag.
- Please note: When revisions are started, we can lock the existing file in our asset management system. Please call Data Integrity at 847.357.9500 or email to dataintegrity@fortdearborn.com to handle this until revisions are released.



CTP Ready Checklist

Media: Secure web transfer Email
 Supplier FTP CD-ROM
Log-in _____

Date: _____

File Name: _____

From: _____

Vendor Contact: _____

Phone: _____

Customer: _____

Brand: _____

Item Description: _____

Packer: _____

UPC Code: _____

Label Trim Size: _____

Varnish Free Size and Position: _____

Names of Colors on Job: _____

Screening: 150 Line Screen Stochastic

Substrate: Paper Synthetic Metallized
 Clear Synthetic Wet Strength

FDC Print Facility: Niles Fort Worth
 Sparks Fountain Inn Leamington Laval
 St. Louis Waukesha

- Straight Cut
- Die Cut Die Corners Marks
- Collators
- Trap (.003")
- Trap (.005") Applies to paint items only

File Types (in order of preference):

- Composite PDF
- Composite Postscript
- Separated PDF
- Separated Postscript
- Single File DCS 2.0 (Vector)

Signed Contract Proof Supplied

- Yes** **If no signed proof is supplied, Fort Dearborn will pull proof at customer's expense.**
- No** **If no signed proof is supplied:**
 - Use previously supplied signed proof / supply FDC with lo res PDF or laser for reference.**
 - Customer has agreed to not supply a proof and will not hold FDC responsible for any color issues.**
 - FDC will output an Epson proof at a cost of \$75 per proof.**

- Fonts Embedded into Supplied File
- Colors / Color Naming
(Follow Fort Dearborn Naming Conventions)
- Appropriate Bleed
- Varnish in file set to overprint
- Die line in file sent to overprint



CTP Ready File Formats

The final document size must be the bleed size of the item and should not contain crop marks or registration. Do not include blank pages, only one label per file. When sending in files via mass transit or FTP, please notify the print facility Customer Service Representative, pre-press designee and / or your Sales Representative within 24 hours.

- The CTP file must be cropped to the bleed or the LABEL must be perfectly centered when submitted.
- Backside print files must come in with the fronts even if backside was not changed.

Fort Dearborn Company accepts the following formats (in order of preference):

1. Composite PDF
2. Composite Postscript
3. Separated PDF
4. Separated Postscript
5. Single File DCS 2.0 (Vector)

- Please note that we no longer accept 1-bit tiffs or DCS Raster.
- Image resolution must be 300 dpi. Anything over 600 dpi will be rejected.

Trapping

All files must be trapped at .003". Copy reversing out of rich blacks and less than 6 pt. must have under colors held back by .003". Black type 6 pt. or smaller should overprint, larger than 6 pt. should trap .003". Black will not overprint Gold unless it is 6 pt. and below. Black copy 18pt. or above should have 40% Cyan undercolor with appropriate pull back.

- Items printing on White or Metallized Synthetic stock require a full .003" trap.
- Items printing on Clear Synthetic stock must trap at .007". Traps may vary for clear, prefer pre-pro meeting to discuss all clear synthetic projects up front to review graphics and trapping scenarios.
 - If reverse printing on Clear Synthetic stock, file should be flipped when submitted to Data Integrity.

Bleed

- 1/8" bleed is required on all item, except for:
 - 1/4" bleed is required on die cut items which are 9" x 9" or larger in both directions.
 - 1/4" bleed is required on die cut items .625" finished size or smaller.
 - All rounded corner files require 1/8" bleed.
 - Die cut items must have the bleed extend to the outer edges of the die corner marks.

Collators

- Collators are required on all files that have a left hand or a right hand lap.
- The collator marks are to be positioned in the lap area unless customer specifies otherwise.
- Each label must have differentiating collators.
- Jobs that are die cut or have universal laps, the collators can be left off the label unless the customer specifies placement (see page 11).



UPC Specifications

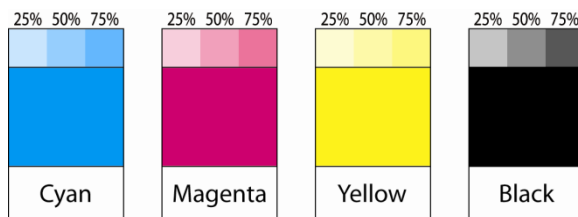
- Minimum size is 80% non-truncated.
- Acceptable UPC sizes are 80%, 85%, 90%, 95% and 100%
- Printer Compensation / Bar Width Reduction: -.0004" (-10 Microns)
- Quiet area must be followed for printability: 80% – 3/32", 90% – 1/8" and 100% – 1/8".
- Minimum percentage of reflectance: 31.6% (difference between dark bars and background)
- All UPC Codes must scan at a Grade Level B or higher or it will not be accepted.
- A scan verification slip must be attached to each signed proof submitted verifying the barcode integrity and showing correct BWR and overall ANSI grade of B or above.
- UPC quiet zone should be White, preferred.
- We will not accept multi color UPC codes, all codes should be one color, 100% Black preferred.

2D / Data Matrix Codes

- Black code on white background (or darkest available color on lightest possible background).
- 5/64" quiet zone on all sides
- All codes must have a read / scan verification.

Color Bars

Fort Dearborn Company requires color bars on each supplied signed proof. The color bars should incorporate tint percentages of 25%, 50%, 75% and 100% for each color. Also, trap colors should be incorporated. See example below.



Print To Cut Tolerance

All copy must be 1/8" from trim and lap or laps. Borders, color banners, top and bottom bands, rules, artwork and graphics must be pulled inside the .125" print to cut tolerance limits unless it is intended to bleed off the label.

Exceptions are:

- 3/32" (.09375) for tiny, vertically challenged labels

Signed Proofs

A signed contract digital proof must be prepared from the final CTP file. Please specify if it is for color and / or content. If a proof is not supplied, Fort Dearborn Company will create one and the customer will be charged.



Screen Angles

Fort Dearborn Company requires that files containing any spot colors that utilize custom angles must be documented with the exact angle used for each spot color submitted with each file. HiColour™ files require the Green to be on the Magenta angle, Orange on the Cyan angle & Violet on the Yellow angle.

Type and Rules

- Reverse type (minimum requirement) – 6 pt. bold face
- Reverse type out of more than one screened color:
 - 7 pt. bold block type / 9 pt. roman block type
 - 8 pt. bold serif type / 10 pt. roman serif type
- Positive type (minimum requirement) – 6 pt. regular face
- Reverse rules out of one color – .5 pt.
- Reverse rules out of multiple colors – 1 pt.
- Positive rules – .5 pt.

Varnish

Every CTP file must contain a varnish. Varnish on straight cut labels flood the entire label including bleed and stop at the lap line. Varnish on die cut labels flood the entire label including the bleed. If there is a lap on a die cut label, the varnish must stop at the lap line. If there is a lazer imprint box on the label, it does not get varnished and should knock out of the varnish.

- This is Fort Dearborn preferred unless the customer specifies otherwise.

Synthetic items must have the varnish / coating stopped .0625" (1/16") before the lap line or meet point unless the customer has specifically instructed the supplier to follow their own custom specification.

Synthetic Items

- Fort Dearborn Company prefers that files printing on synthetic material be developed in HiColour™.

Clear Synthetic Items

- Clear synthetic can print 150 line screen with spot colors due to ink coverage limits of 320% total. All clear synthetic projects must have a pre-pro meeting to review graphics, ink coverage and trap prior to pre-press. Data Integrity, Graphics Manager as well as the actual printing plant must be on the pre-pro before the project begins.

Color Naming Specifications

Special colors are any non-process (cyan, magenta, yellow, black, orange, green, violet) inks, including white ink, additional black or spot varnish. Note that there will be an additional charge for printing files with special colors and your Customer Service Representative must be advised of any CTP ready file using special colors prior to submittal to Fort Dearborn Company.

The following are examples of exact color names to be used on all supplied CTP files at any Fort Dearborn Company location. Please follow these names EXACTLY (including upper and lower case LETTERS, SPACES, etc.)



Process and HiColour™ Colors

Both Process and HiColour™ colors should be named: Cyan, Magenta, Yellow, Black, Green, Orange, Violet.

Pantone Colors

- All Pantone color names should end in C. Do not use CVC or CV.
- All Pantone colors that are represented by numbers only: PANTONE 185 C
- All Pantone colors that include a color name and number:
PANTONE Red 032 C
PANTONE Reflex Blue C
PANTONE Warm Gray 4 C (*note spelling of Gray*)

Acceptable Combination Spot Colors

- Fort Dearborn Company requires that Gold be named: PANTONE 873 C
- Fort Dearborn Company requires that Silver be named: PANTONE 877 C
- Fort Dearborn Company requires that Reflex Blue be named: PANTONE Reflex Blue C

Extra Colors

Fort Dearborn Company requires that files must only contain the colors the job is printing. Please remove any unused colors and channels within the final CTP file, job tag and tag line.

Other Colors

- Die line or trim line with lap lines are required to be present on all files.
- These lines must be colored a **spot color** named “Die” and set to overprint. These are present whether it is a straight cut label or a true die cut label.
- Die (Process build is **usually** 100M)
- White ink on metallized jobs should be named: White Ink (Process build is 50M)
- Gloss or dull varnishes should be named: Varnish (Process build is 50M, 100Y)
- Additional varnishes (spot only) should be named: 2nd Varnish (Process build is 25M, 50Y)
- Additional blacks should be named: 2nd Black (Process build is 100K)
- Rich Black process build is: 40C, 100K
- Built Black process build is: 70C, 60M, 60Y, 100K
- Fake Black process build is: 60M, 100Y, 100FDDkBI
- Perf line should be a separate spot color called “Perf” set to overprint.

For naming of customer-specific ink names, please call your Customer Service Representative.

- **Please note that all files must contain only the colors that are printing. If the file has no live printing artwork on any given channel, that channel must not appear in the CTP file.**



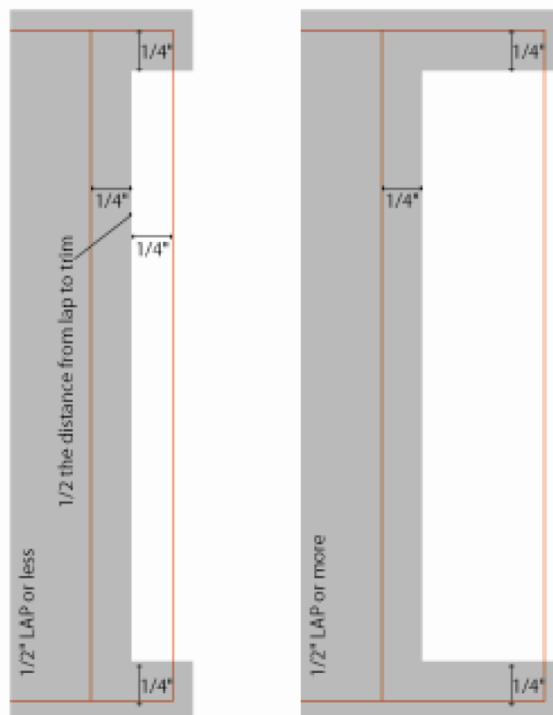
Preferred Common Can Size Examples

	Trim Size	Final Page Size with Bleed
#300	9 5/8 x 4 – 9.625 x 4	9 7/8 x 4 1/4 – 9.875 x 4.25
	9 5/8 x 4 1/16 – 9.625 x 4.0625	9 7/8 x 4 5/16 – 9.875 x 4.3125
	9 5/8 x 4 1/8 – 9.625 x 4.125	9 7/8 x 4 3/8 – 9.875 x 4.375
#10AA	19 5/8 x 6 5/8 – 19.625 x 6.625	19 7/8 x 6 7/8 – 19.875 x 6.875
#3TALL	13 5/8 x 6 5/8 – 13.625 x 6.625	13 7/8 x 6 7/8 – 13.875 x 6.875
#2	10 7/8 x 4 1/8 – 10.875 x 4.125	11 1/8 x 4 5/8 – 11.125 x 4.625
#2 1/2	12 7/8 x 4 3/8 – 12.875 x 4.375	13 1/8 x 4 5/8 – 13.125 x 4.625
#8 oz	8 5/8 x 3 5/8 – 8.625 x 3.625	8 7/8 x 3 7/8 – 8.875 x 3.875

Laps: All common can sizes listed above use 1/2" right-hand laps.

Lap and Dogear

Color and graphics must extend into the lap. However, unprinted space or dogear is required for glue application. If the lap is 1/2" or less, the dogear is half the distance from the lap to trim. If the lap is larger than 1/2", the dogear is 1/4" away from the lap. Regardless of the height of the label, the dogear always goes 1/4" away from the trim on top and bottom.



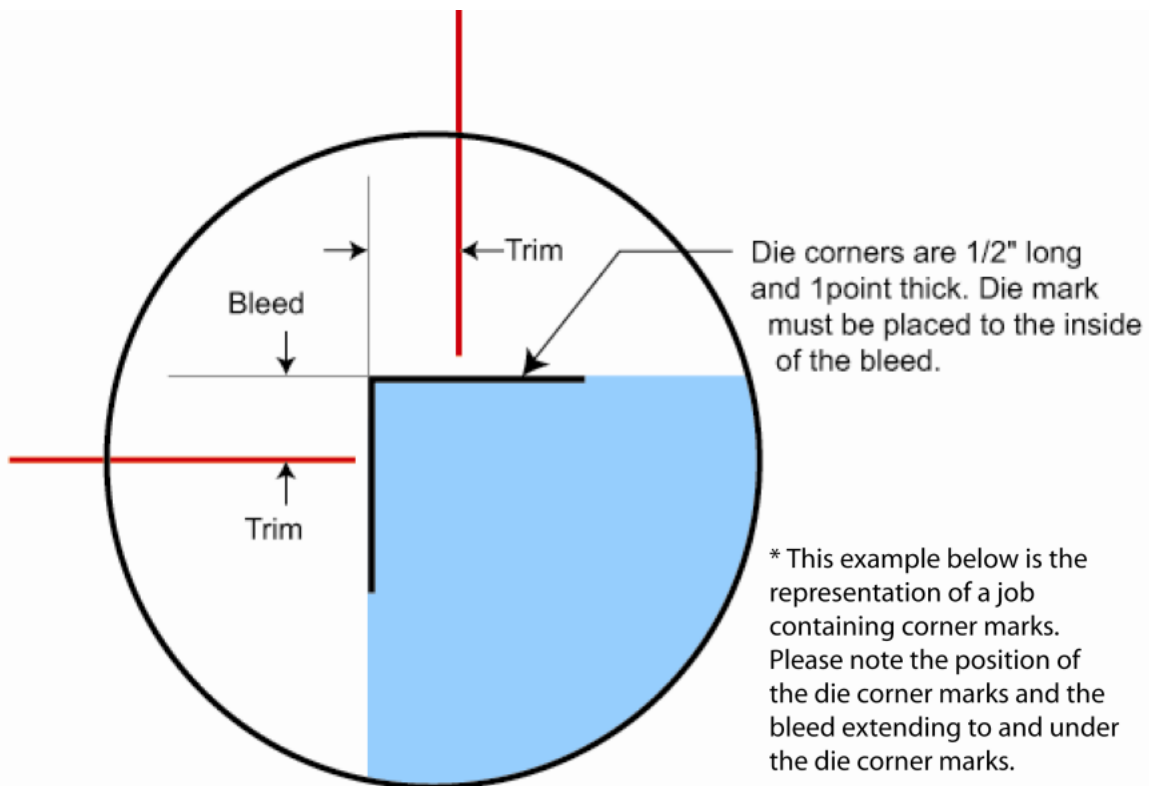


Die Cut

- Minimum size for die cut labels is 1.5" x 1.5".
- .25" bleed to corner marks
- Anything smaller must be reviewed and approved by Data Integrity, Graphics Manager and the appropriate Fort Dearborn Company plant prior to pre-press beginning.

Die Lines and Corner Marks

- A die line for die cut items or trim line with lap lines for straight cut items must appear on all supplied CTP files. They are to be colored a spot color called "Die" and set to overprint.
- Die corner marks should appear on all die cut jobs. They are to be colored in the darkest printing color and set to overprint. If the label background is dark, then the corner marks can knockout. Bleed should extend to the outer edges of the die corner marks. See example below.
- There is one category of labels that combines both straight cut and die cut features. These labels are straight cut, but are then round cornered in the finishing department. The only radii available for this process are 1/4", 5/8", 3/4", 3/8" 1", 1 1/4" and 1 1/2". The radius should be indicated in the top left corner, 1/16" away from trim (and in all corners if there is more than one radius used on the label).





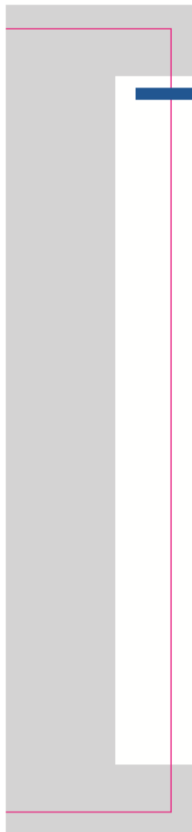
Collator Bars SOP

- Collators are required on all files with a left hand or right hand lap.
- The collator marks are to be positioned within the lap area. See diagram below.
- Each label must contain different collators.
- Die cut items with no lap or jobs with a universal lap **can** have the collators positioned above or below the Nutrition Facts panel vertically extending into the trim no more than 1/64" **if approved by the customer.**
- Fort Dearborn Company does not require collators on die cut items or items with a universal lap.

Collator Bars Instructions

- The starting position is measured from the top of the label trim line for all sizes, positioned .312" down from the trim line.
- All bar colors are to be process. You can start with the primary colors and do variations of them as they progress.
- Collator Bars are .312" W x .0625" H, bleeding off the lap. Width and height can be adjusted for smaller size labels.
- Each label must contain a different bar or combination of bars.
- Avoid using solid colors as they may show through on white labels.
- Do not use colors not printing in file.

Starting Position



Possible Color Variations





Printing Process

- Conventional Sheetfed Offset

Total Number of Colors in One Pass

- 7 colors or 6 colors plus coating / varnishes
- One color backside printing also available on same pass

Coatings

- Press Varnish, Waterbase, UV (in-line and off-line)

Substrates

- C1S Papers
- Synthetic Papers (White, Clear, Metallized)
- Metallized
- Wet Strength Paper

Tone Value Increase (TVI)

File Values	Y	M	C	K
5%	9%	9%	9%	9%
10%	15%	16%	15%	16%
20%	31%	31%	29%	32%
25%	38%	38%	36%	39%
30%	44%	45%	43%	46%
40%	57%	59%	56%	60%
50%	68%	70%	67%	71%
60%	77%	79%	76%	80%
70%	84%	86%	83%	86%
75%	88%	89%	86%	89%
80%	91%	91%	89%	92%
90%	95%	96%	95%	96%
95%	98%	98%	98%	98%

Density

- Total ink coverage limit is 320%

YELLOW	MAGENTA	CYAN	BLACK	
1.10	1.45	1.35	1.90	Wet
1.05	1.40	1.27	1.76	Dry



Colormetric Ink Data

- Wet Spectrophotometer readings

	L*	A*	B*	C*	h	(+/-2) Hue	(+/-2) Gray
Pro Cyan	58.27	-41.96	-42.26	59.55	225.20	19.2	15.5
Pro Black	11.03	0.11	-0.90	0.91	277.15	---	99.2
Pro Magenta	46.35	64.20	-4.05	64.33	356.39	42	20.5
Pro Yellow	83.75	0.02	93.55	93.55	89.99	5.6	12

Ink Down Sequence

- 4/C Process: Cyan, Magenta, Yellow, Black
- 4/C Process + spot: Cyan, Magenta, Spot Color, Yellow, Black
- 4/C Process + Metallic: Metallic, Cyan, Magenta, Yellow, Black
- HiColour™: Violet, Green, Orange, Cyan, Magenta, Yellow, Black
- Synthetic (HiColour™): Violet, Black, Green, Orange, Cyan, Magenta, Yellow

Color Measurement

- X-Rite Spectrophotometer (paper substrates)
- Sphere Spectrophotometer (metallized substrates if not using opaque white under color bar)

Line Screen

- 150 Line Screen
 - Please reference the HiColour™ Specifications on pages 14 – 16 of this guide for HiColour™ specifics

Min / Max Printing Dot

- Minimum printing dot is 1%
- Maximum printing dot is 99%

Grey Component Replacement (GCR)

- All files require medium to heavy GCR applied to all files completed by internal or external pre-press.

Instrument configuration: X-Rite 528 Spectrodensitometer
Status Filter T, Absolute, LAB, CMC 2:1:1, D50/10, 0/45, Preucil
11/2012



HiColour™ Specifications

Fort Dearborn Company's HiColour™ system delivers up to 90% of PMS colors, producing a wider gamut of color than traditional 4 color process. The fluorescence-free inks combined with high definition stochastic screening produces realistic looking images, making them ideally suited for the needs of the packaging industry.

HiColour™ Guidelines

The HiColour™ system includes Cyan, Magenta, Yellow, Black, Orange, Green and Violet.

- Use CMYK colors before introducing Orange, Green and / or Violet
(refer to a Solid to Process Color Guide)
- Graphic images / photos will be enhanced from the high definition stochastic screening, thus eliminating the need to add Orange and Green *(utilize Orange and Green in graphic images / photos only when required by the customer)*.
- Parameters for using Violet:
 - Use Violet only to eliminate a special color
 - Violet is to be used in logos / line art only and not in graphic / photo images
 - When using Violet, try to eliminate Orange or Green to keep the job to a 6 color job
- Substrates available
 - C1S papers
 - Synthetic papers
 - White, Clear, Metallized

Grey Component Replacement (GCR)

- All files require medium to heavy GCR applied to all files completed by internal or external pre-press.

Instrument configuration: X-Rite 528 Spectrodensitometer
Status Filter T, Absolute, LAB, CMC 2:1:1, D50/10, 0/45, Preucil
11/2012



HiColour™ Specifications: C1S Papers

Substrate: C1S Papers

Screening: Creo Staccato 2nd Order 20 micron

Angles: C&O same angle M&G same angle Y&V same angle

Ink Rotation: Violet, Green, Orange, Cyan, Magenta, Yellow, Black

Densities:

Target Density
(+/- .05)

CYAN	MAGENTA	YELLOW	BLACK	ORANGE	GREEN	VIOLET
1.65	1.65	1.10	1.90	1.65	1.55	1.56
1.56	1.60	1.05	1.76	1.57	1.47	1.47

Wet
Dry

Hue/Grey:

Hue Error
Grey Error

CYAN	MAGENTA	YELLOW	BLACK	ORANGE	GREEN	VIOLET
18.1%	41.4%	5.4%	48.6%	52.7%	42.2%	80.0%
14.1%	19.4%	11.5%	99.7%	8.2%	25.1%	36.8%

Ink Colormetric:

L*
a*
b*

CYAN	MAGENTA	YELLOW	BLACK	ORANGE	GREEN	VIOLET
54.35	44.48	84.22	11.01	64.64	56.36	26.59
-43.34	66.39	-0.19	0.25	50.84	-69.74	28.86
-45.01	-1.59	94.13	-0.36	82.41	33.29	-59.94

TVI (Tone Value Increase) Dot Area:

File Value	CYAN	MAGENTA	YELLOW	BLACK	ORANGE	GREEN	VIOLET
5%	9%	10%	9%	7%	9%	9%	9%
10%	19%	21%	19%	13%	20%	19%	20%
20%	34%	36%	35%	26%	39%	32%	39%
25%	42%	44%	43%	35%	48%	41%	48%
30%	50%	52%	51%	43%	56%	50%	56%
40%	64%	66%	63%	54%	69%	63%	69%
50%	74%	78%	74%	68%	79%	73%	79%
60%	82%	86%	83%	80%	86%	81%	86%
70%	88%	93%	90%	89%	90%	88%	90%
75%	91%	95%	93%	92%	92%	91%	92%
80%	94%	97%	96%	95%	94%	94%	94%
90%	97%	98%	98%	98%	96%	97%	96%
95%	99%	99%	99%	99%	99%	99%	99%

Instrument configuration: X-Rite 528 Spectrodensitometer
Status Filter T, Absolute, LAB, CMC 2:1:1, D50/10, 0/45, Preucil
11/2012



HiColour™ Specifications: Synthetic

- Substrate:** Synthetic (White, Clear, Metallized)
- Screening:** Creo Staccato 2nd Order 20 micron
- Angles:** C&O same angle M&G same angle Y&V same angle
- Ink Rotation:** White Synthetic: Surface printed
 Violet, Black, Green, Orange, Cyan, Magenta, Yellow
 Clear Synthetic: Reverse Printed (2 hits of White)
 Violet, Black, Green, Orange, Cyan, Magenta, Yellow, White, White
 Metallized Synthetic:
 Violet, Black, Green, Orange, Cyan, Magenta, Yellow
 Violet can be used if it eliminates a spot color
 White dot gain 50% + 20 = 70%

Densities:

Target Density (+/- .05)	CYAN	MAGENTA	YELLOW	BLACK	ORANGE	GREEN	VIOLET
	1.40	1.40	1.06	1.75	1.40	1.30	1.70
	1.35	1.35	1.00	1.70	1.35	1.25	1.65

Wet
Dry

Hue/Grey:

	CYAN	MAGENTA	YELLOW	BLACK	ORANGE	GREEN	VIOLET
Hue Error	18.4%	43.1%	5.1%	37.0%	55.2%	49.5%	77.0%
Grey Error	16.0%	21.0%	9.9%	98.2%	5.9%	27.6%	37.3%

Ink Colorimetric:

	CYAN	MAGENTA	YELLOW	BLACK	ORANGE	GREEN	VIOLET
L*	52.71	43.46	85.72	13.08	65.72	54.11	27.19
a*	-42.77	65.85	-0.03	-0.97	54.28	-71.48	29.17
b*	-44.58	-0.33	97.20	0.51	84.28	37.94	-58.83

TVI (Tone Value Increase) Dot Area:

File Value	CYAN	MAGENTA	YELLOW	BLACK	ORANGE	GREEN	VIOLET
5%	10%	10%	11%	11%	11%	10%	11%
10%	20%	20%	20%	21%	20%	19%	21%
20%	35%	36%	35%	36%	36%	32%	36%
25%	41%	43%	42%	43%	42%	39%	43%
30%	47%	49%	48%	50%	48%	45%	50%
40%	58%	60%	59%	62%	60%	55%	62%
50%	70%	71%	70%	73%	70%	70%	73%
60%	79%	81%	77%	84%	80%	79%	84%
70%	88%	89%	85%	91%	87%	87%	91%
75%	91%	92%	89%	94%	91%	92%	94%
80%	94%	95%	92%	96%	94%	96%	96%
90%	98%	98%	95%	98%	98%	98%	98%
95%	99%	99%	98%	99%	99%	99%	99%

Dot gain for White is 50% + 20 = 70%

Instrument configuration: X-Rite 528 Spectrodensitometer
 Status Filter T, Absolute, LAB, CMC 2:1:1, D50/10, 0/45, Preucil
 11/2012



Treehouse Specifications: C1S Papers

- Substrate:** C1S Papers
- Screening:** Creo Staccato 2nd Order 20 micron
- Angles:** C&O same angle M&G same angle Y&B same angle
- Ink Rotation:** THBlue, Green, Orange, Cyan, Magenta, Yellow, Black

Densities:

Target Density (+/- .05)	CYAN	MAGENTA	YELLOW	BLACK	ORANGE	GREEN	THBlue
	1.65	1.65	1.10	1.90	1.65	1.55	2.05
	1.56	1.60	1.05	1.76	1.57	1.47	1.99

Wet
Dry

Hue/Grey:

	CYAN	MAGENTA	YELLOW	BLACK	ORANGE	GREEN	THBlue
Hue Error	18.1%	41.4%	5.4%	48.6%	52.7%	42.2%	50.0%
Grey Error	14.1%	19.4%	11.5%	99.7%	8.2%	25.1%	23.7%

Ink Colormetric:

	CYAN	MAGENTA	YELLOW	BLACK	ORANGE	GREEN	THBlue
L*	54.35	44.48	84.22	11.01	64.64	56.36	26.59
a*	-43.34	66.39	-0.19	0.25	50.84	-69.74	19.4
b*	-45.01	-1.59	94.13	-0.36	82.41	33.29	-68.1

TVI (Tone Value Increase) Dot Area:

File Value	CYAN	MAGENTA	YELLOW	BLACK	ORANGE	GREEN	THBlue
5%	9%	10%	9%	7%	9%	9%	10.1%
10%	19%	21%	19%	13%	20%	19%	16.6%
20%	34%	36%	35%	26%	39%	32%	27.7%
25%	42%	44%	43%	35%	48%	41%	33.9%
30%	50%	52%	51%	43%	56%	50%	41.7%
40%	64%	66%	63%	54%	69%	63%	52.2%
50%	74%	78%	74%	68%	79%	73%	64.1%
60%	82%	86%	83%	80%	86%	81%	74.9%
70%	88%	93%	90%	89%	90%	88%	82.5%
75%	91%	95%	93%	92%	92%	91%	86.6%
80%	94%	97%	96%	95%	94%	94%	90.8%
90%	97%	98%	98%	98%	96%	97%	94.9%
95%	99%	99%	99%	99%	99%	99%	98%