



Design Operations

Corporate Reference Document 208

Description: Production Art File Requirements – Packaging

Specification No.: CRD-208

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Change Record: See Last Section

1.0 PURPOSE:

To communicate 3M's requirements associated with the creation, assembly, and distribution of production art files for 3M packaging.

2.0 INTRODUCTION:

With creative agencies, designers, and packaging printers/suppliers having a diverse suite of tools to support the design and reproduction of packaging artwork. Due to the abundance of these tools, the need for certain controls to manage undesired variability within the package creative process. While some of this variability causes minor nuisances, others can result in costly rework and/or delays in the reproduction if not properly managed.

To alleviate these problems, 3M developed this document to establish standards defining how graphic designers develop production art for packaging. Contained within this Corporate General Specification is information related to:

- Software standards for developing production art and supporting digital assets
- Guidelines around the creation of production art files
- Approved methods for both final file collection and distribution of approved production art to 3M

It shall be the responsibility of 3M to manage updates and related communications tied to this Corporate General Specification, but it shall be the graphic designer's responsibility to create and submit production art files in compliance with this Corporate General Specification. If you have questions about this document, please contact your 3M representative.

3.0 ARTWORK PREPARATION:

3.1 Print Method – Design Considerations:

There are many aspects to consider when designing production art for packaging, several are critical to the successful print reproduction of the package. These include understanding target print method, software utilization, and proper design techniques.

The first consideration that should be taken into account by the graphic designer is to understand the print method that will be used in reproduction. Due to inherent differences across the different print methods available in the industry, understanding what print methods support each package commodity, as well as having a working knowledge of these print methods is critical.

Notes:

It is the graphic designer's responsibility to understand design requirements associated with each print method. Types of print methods you could be designing for are as follows, but not limited to:

- Offset (Lithography)
- Flexography (Flexo)
- Dry Offset
- Digital (Many different substrates)
- Gravure
- Corrugate (Flexo)

4.0 SOFTWARE STANDARDS:

- Adobe® Illustrator® (Creative Cloud)
- Adobe® In-Design® (Creative Cloud)
- Adobe® Photoshop® (Creative Cloud) – Minimum Requirement

Notes:

Adobe® Illustrator is required for all packaging work using a die line. InDesign can be used for collateral and page layout work.

When executing any level of alteration to a legacy production art file, it is required (unless otherwise specified by 3M) that the production art be re-built using one of the approved software standards as outlined above.

5.0 SOFTWARE UTILIZATION:

When designing production art files and the various digital assets that comprise them, adhere to the following:

All supporting vector-based design elements (e.g.: type, illustrations, dielines, logos, barcodes, other) should be created in Adobe® Creative Cloud®. Create as much of the artwork as possible within Adobe® Illustrator®. Make sure your raster settings are set to 300 dpi and in CMYK document color mode.

All supporting raster-based design elements such as photography which cannot be created in Adobe® Illustrator® or will not color separate properly if created within that program, should be designed in a raster program (default is Adobe® Photoshop®) and placed into the Adobe® Illustrator® production art file as a supporting asset. Make sure your settings are set at 300 dpi and in CMYK document color mode.

6.0 PRODUCTION ART DESIGN REQUIREMENTS:

- 6.1 Dieline:** A dieline serves as the foundation for creating production art files for packaging. As such, it shall be the responsibility of 3M to provide graphic designers with properly built electronic dielines in compliance with **3M Corporate General Specification Pkg-Sol-RD-902588 3M Corporate Packaging Solutions Global Dieline Requirements**.

Notes:

In the event that the production art file will be designed to include printed content on both sides of the substrate, the graphic designer should “mirror” the electronic dieline, unless the electronic dieline contains both inside and outside definitions.

No premedia partner should create a dieline for any reason without proper 3M management. Please reach out to your local 3M representative to coordinate delivery of a dieline.

6.2 FONT SIZE and RULE/KEYLINE MINIMUMS (including Net Contents and Hazardous copy statements) - POSITIVE & NEGATIVE:

Capabilities can differ between print methods and printers.

- The target printer is not known and/or;
- Specific capabilities pertaining to a given printer and/or print method are not understood or communicated to the graphic designer by 3M.

Each print method shown below shows minimum requirements

IMPORTANT! If package is sold in USAC (English including multi-lingual languages (i.e. French Canadian, Latin American Spanish)):

- **Primary Net Contents Statement:** For minimum font height of the primary unit-of-sale package net contents statement, see **Appendix I** Primary Package – Net Contents Minimum Typeface Chart for specific requirements. For “how to” copy formatting, see **Appendix III** – Copy Formatting Guideline.

- **Primary Package – Hazardous Substances Statement (for regulated product packaging):** For minimum font height of the primary unit-of-sale package net contents statement, see **Appendix II** Primary Package – Hazardous Substances Minimum Typeface Chart for specific requirements.
- **For all packaging supplies (primary, intermediate and shipper) net contents statement:** See **Appendix III** – Net Contents Measurement of Commodity - Copy Formatting Guideline for “how to” instructions.

Note: If sold only outside USAC, the package Net Contents statement must meet each country’s minimum legal and/or regulatory requirements.

7.0 **DIRECT PRINT CORRUGATE**

7.1 **Font Sizing**

When creating art for corrugate printing fonts, the following minimum targets need to be met:

- Positive text .09 in (2,5 mm). Based on: Proxima Nova 10pt – This excludes superscript.
- Negative (Reverse) text .14 in (3,54 mm) Based on: Proxima Nova 14pt – This excludes superscript.
- Superscript Positive text (™ or ®) 0.1 in (2,5 mm) Based on Proxima Nova Superscript **20pt**
- Superscript Negative (™ or ®) 0.12 in (3,0 mm) Based on Proxima Nova

The more complex the symbology (Asian, Arabic, etc.) increase all sizes above by at least .05 in (1,04mm) 4pts.

For larger font sizes than listed above, please follow corporate style guides.

If a font size below the target value is desired, please contact the printer directly to confirm smaller size is acceptable.

7.2 **Keyline/Stroke Sizing**

When creating art for corrugate printing rules/keylines/stroke, the following targets need to be met:

- Positive rule (Stroke/Keyline) .014 in (0,35 mm) or 1pt
- Negative (Reverse) rule (Stroke/Keyline) .028 in (0,71 mm) or 2pt

For larger rule sizes than listed above, please follow corporate style guides.

If smaller rule sizes are desired, please contact the printer directly to see if smaller sizes are acceptable.

7.3 **Special Rules:**

As mentioned above, all graphics and copy should be placed at .375 (9,53mm) from folds or trip regardless of the dieline.

Trapping: Note in the image below the area where two colors come together. A trap of .0625 in (1,6mm). Keep all copy, graphics at least .125 in (3,2mm) from each other.

Reverse graphics should be contained to 1 color. Alignment of graphics across multiple colors will have registration issues leaving an undesired outcome.

This is VERY common in direct print (corrugate work).



7.4 BOX MAKER'S CERTIFICATE:

The Box Maker's Certificate (BMC) is a seal printed on the bottom of a corrugated box that identifies the strength of a box's construction. This is not legally required, but proof that the box has been properly tested and rated.

When specifying to use a Box Maker's Certificate on pre-print corrugate shippers, the requirement is to provide a "placeholder" BMC icon on corrugate box bottoms (see below) that printers are responsible for swapping out when they print 3M's art.



The BMC placeholder should be placed on an outside bottom major flap of the shipping container. If there is not room on the bottom flap for the BMC, then it can be placed in another location that does not interfere with other graphics that might be on the shipper.

Corrugated Recycles symbol is to be positioned alongside the Box Maker's Certificate. If space does not allow for this placement, ONLY the symbol shall be centered left to right and top to bottom on opposite flap. All versions of the "Corrugated Recycles" symbol issued by the Fibre Box Association are acceptable for use. See website www.corrugated.org for details.

Refer to Corporate Doc 1009 for more details on proper use and placement of the Box Maker's Certificate.

8.0 OFFSET (LITHOGRAPHY)

8.1 Font Sizing

When creating art for offset printing, the following targets need to be met:

- Positive text .006 in (.15 mm). Based on: Proxima Nova 4.0 pt – This excludes superscript.
- Negative (Reverse) text .010 in (0.254 mm) Based on: Proxima Nova 5 pt – This excludes superscript.

8.2 Keyline/Stroke Sizing

- .25pt Lines/Rules/Keylines
- .5pt Reverse Lines/Rules/Keylines

9.0 FLEXO (FLEXOGRAPHY) NARROW WEB (LABEL):

9.1 Font sizing

When creating art for flexo printing fonts, the following targets need to be met:

- Positive text .056 in (1.42 mm) Based on: Proxima Nova 4 pt – This excludes superscript.
- Negative (Reverse) text XXX in (.xxx mm) Based on: Proxima Nova 5 pt – This excludes superscript.

9.2 Keyline/Stroke Sizing

- .25pt Lines/Rules/Keylines
- .5pt Reverse Lines/Rules/Keylines

10.0 FLEXO (FLEXOGRAPHY) MID/WIDE WEB:

10.1 Font Sizing

When creating art for mid/wide-web flexo printing, the following targets need to be met:

- Positive text .08 in (2.03 mm) Based on: Proxima Nova 6 pt – This excludes superscript.
- Negative (Reverse) text .11 in (2.8 mm) Based on: Proxima Nova 8pt – This excludes superscript.

10.2 Keyline/Stroke Sizing

- .5pt Lines/Rules/Keylines (Positive)
- 1.5pt Reverse Lines/Rules/Keylines (Reverse)

11.0 Dry-Offset:

When creating art for dry-offset printing, the following targets need to be met:

11.1 Font Sizing

- Positive text .08 in (2.03 mm) Based on: Proxima Nova 6 pt – This excludes superscript.
- Negative (Reverse) text .09 in (2.3 mm) Based on: Proxima Nova 7 pt – This excludes superscript.

11.2 Keyline/Stroke Sizing

- .25pt Lines/Rules/Keylines
- .75pt Reverse Lines/Rules/Keylines

12.0 DOCUMENT SIZING:

All production art files must be designed at 100% scale (no reductions in scale are acceptable, even if clearly defined in any or all working files).

13.0 LAYERING:

All production art files for packaging should be built on layers to properly organize all digital assets contained within the artwork. Outlined below are suggestions to be used within a production art file.

When determining layering requirements, it is strongly recommended that the graphic designer reduce the number of layers to a consistent, logical set. In most situations, Adobe® Illustrator® files could be effectively designed with an average of 5 to 7 layers. All the layers within a production art file should be properly labeled with their contents. See figure 1 below. All layers are appropriately identified. 'Layer 6' and 'Layer 13' are not acceptable labels for the layer.

Notes:

It is also recommended that the production artist logically group related digital assets contained within the artwork (i.e. : logos should be grouped along with their registration or trademark artwork).

The word “text” instead of the word “copy” has been used to describe layers that contain type. The word “copy” is too ambiguous and could mean it is a copy of another layer.

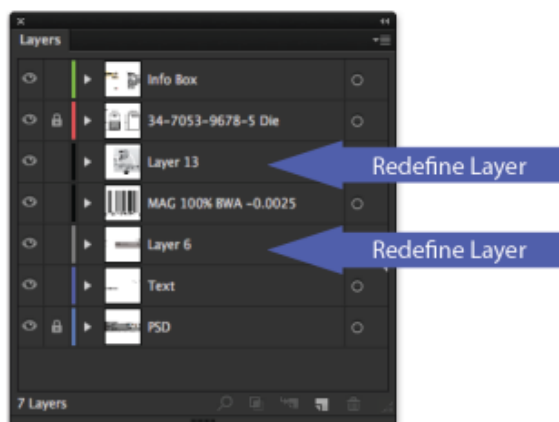


Figure 1

Delete any layers that are not a part of the final approved artwork before submission to 3M (some layers used during the building process may no longer be needed once the artwork is approved and should be deleted before the final collection process in order to avoid any confusion in prepress). In reviewing Figure 2 below, the red arrows point to layers that will not be a part of the final approved artwork. As such, both layers should be deleted before final collection and distribution to 3M.

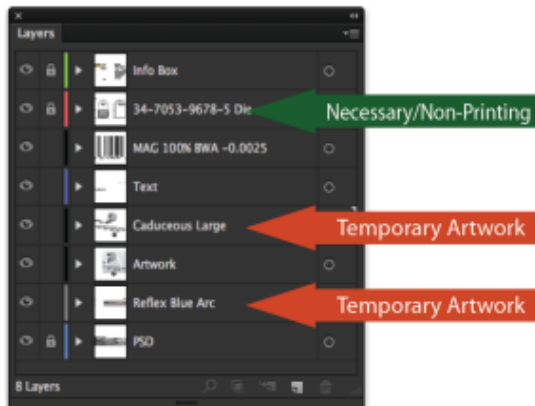


Figure 2

It is a requirement to retain the electronic dieline as part of the final approved artwork. Even though this layer is not used for printing, it does provide the printer with pertinent information regarding the package structure. The dieline should be color broke as a custom spot color named "Dieline" and define it as 100% Black in order to ensure that the dieline would never accidentally be separated into the process colors of an artwork file. It should also be set to **overprint, multiply or darken within the file.**

Do not layer any artwork directly on the dieline (keep the dieline and related elements (e.g. major dimensions, dieline, etc.) on a separate layer.

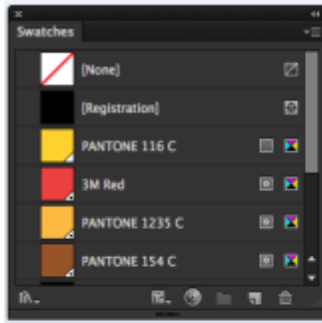
13.1 WHITE LAYERS / TREATMENT

All graphics should be included on the same page. A second page for independent treatments, coatings and under-prints is not necessary. All white elements should be set to overprint and be placed in the topmost layer under the dieline.

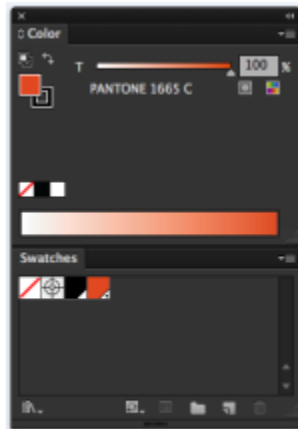
14.0 COLOR UTILIZATION:

When implementing color, only colors that are a component of the production art should appear in the Adobe® Illustrator®'s palette (remove all unused colors). When assigning colors in Adobe® Illustrator®, default to using either CMYK process colors or Pantone spot colors (unless otherwise instructed by 3M. Ex: Custom Colors or Brand colors as defined in RD1200).

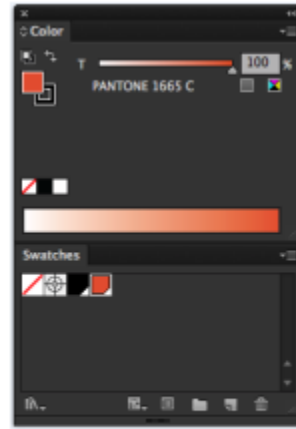
Exceptions include, but may not be limited to: 3M Red, Spot White, Spot Black, Rich Black, Spot Varnish. 3M Red should be named "3M Red" (not "3M Red Spot Color") and should be set up as: 0% C, 100% M, 90%Y, 0%K.



*Colors used within the document are the **ONLY** colors that should remain in the file's Swatch*



*The angled corner and the dot indicate this is a spot color that will color separate to its own printing plate.
Note: The spot color indicator is "active".*



*The angled corner and the dot indicate this is **NOT** a spot color that will color separate as CMYK.
Note: The spot color indicator is "grayed out".*

When utilizing Pantone colors, always use the spot-color name the application Adobe® Illustrator® assigns. When placing files within Adobe® Illustrator®, the name of the color from the raster program, such as Adobe® Photoshop®, must match exactly the name of the spot color in Adobe® Illustrator®. If the names do not match between the two applications, the color(s) will not separate correctly.

When converting Pantone Spot colors to 4 color process, refer to values as provided by Pantone in the Pantone Color Bridge publication. Do not convert using values provided by Adobe Software. If unable to translate properly, please consult your 3M representative for those values.

Notes:

Clean up color palette after importing graphic elements. Care must be taken when adding graphic elements from other files. Be sure that if the graphics are to be printed using spot colors, that no process colors are used in the placed files.

14.1 **CAUTIONARY COLORS:**

Provided is a list of colors to use caution and are encouraged to deviate from the following colors:

- **All Metallic Colors**
 - Metallic Colors contain elements of metal that make this color difficult when working with screens.
 - Okay to use if no screens present in the art.
- **Rhodamine Red** or facsimile of said color. Including its use in other Pantone colors.
- **Reflex Blue**
 - This is a Brand Color used with the Nexcare Brand, it should be the only use of Reflex Blue within our packaging.
 - Due to its reaction with coatings and varnishes it is difficult to achieve within specifications consistently.
- **Black 7**
 - Black 7 contains 20% Pantone 877 (Metallic), see above.
 - Okay to use if no screens present in the art.

At the time of this release, there is art where these colors are used. As 3M moves forward with any redesigns, it is encouraged to move away from the use of the listed colors.

15.0 **FONT UTILIZATION:**

When incorporating typeset copy as a component of any production art file for packaging, default to utilizing the Adobe Font library <https://fonts.adobe.com/> for all new 3M artwork.

If any font other than those from the Adobe font library, you will need to work with your 3M Representative to identify an Adobe font to replace the existing font and consolidate font versions within each touchpoint.

Change Management Process:

1. **Font selection for NEW artwork:**
Use Adobe Font library <https://fonts.adobe.com/>
2. **Font selection for planned updates to existing artwork:**
Work with your 3M representative to identify an Adobe font to replace the existing font and consolidate font versions within each touchpoint.
This decision will be captured in an updated guideline to guide extension development.

Notes:

When utilizing Helvetica fonts, unwanted font substitutions within Adobe® Illustrator® may occur (Adobe Helvetica vs. MAC Helvetica differences under MAC OS10). Utilization of Open Type-fonts has been proven to prevent any unwanted substitutions.

16.0 SPECIAL CONSIDERATIONS:

16.1 Multi-Side Printing:

When designing production art that is to be printed on multiple sides of a given substrate, it is required that the different sides are designed on different art boards in one document file (art board pages must also be named properly) so both 3M and the printer understand that the production art file is one piece of artwork with both a front and backside view and not two separate pieces of artwork.

16.2 Pagination of Multi-Page Books/Booklets:

When designing production art that is defined as multi-page book/booklet, make sure the production art document file is set-up as single pages, but also be set in single page reader-spread. 3M shall be required to provide the graphic designer with detailed information pertaining to both a blank size and finished size as requirements regarding supplier specifics for pagination is variable by printer. For communication purposes, a thumbnail defining folds and pagination is desirable.

16.3 Foil Stamping:

When foil stamping will be included as part of the converting process of a packaging component, the shape(s), location(s), as well as any other defining characteristics need to be included as part of the production art file. When incorporating foil-stamp finishing, treat it as a spot color and represent it as a separate layer within the production art file. Note: Foil-Stamp layers should be defined as “Foil Stamp”. In addition, this layer should be properly noted as “off for printing” so that the printer does not produce a printing plate, but left on for approvals.

16.4 Embossing/Debossing:

When embossing and/or debossing will be included as part of the converting process of a packaging component, the shape of the embossing and/or debossing area(s) should be included as part of the production art file. When incorporating embossing and/or debossing finishing, treat it as a spot color and represent it as a separate layer within the artwork. Note: Emboss/Deboss layers should be defined as “Emboss” or “Deboss” (if the artwork will contain both, then separate all embossing from all debossing by defining them on their own layers). In addition, any emboss/deboss layers should be properly noted as “off for printing” so that the printer does not produce a printing plate, but left on for approvals.

16.5 Guidelines for implementing coatings/varnishes/underprint definitions in artwork:

When a coating, varnish, underprint, or other definition is required as part of the production art file, you are to color break the coating, varnish, underprint, or as a custom spot color and named accordingly in order to insure that the coating, varnish,

underprint, or other color would never accidentally be separated into the process colors of an artwork file.

- **Spot:** If the coating, varnish, underprint, or other defined in the production art file will only cover a portion of the overall artwork area, then it needs to be properly sized and located within the production art file so the printer can properly separate during the prepress process.
- **Floodcoat:** If the coating, varnish, underprint, or other defined in the production art file will be a floodcoat over the entire artwork area, then it needs to be properly sized and located within the artwork so the printer can properly separate during the prepress process (and must include proper bleed, where applicable).

Notes:

When incorporating coating or varnish definitions, the custom spot color should be defined as 100% Magenta.

When incorporating an underprint white definition, the custom spot color should be represented as either a pink or light blue color.

In situations where you need to represent the substrate as part of the production art file, it should be represented as a gray color.

16.6 Guidelines for defining double-bump definitions in artwork:

When designing production art that will require a double-bump of white as part of the printing process, separate the two bumps of white on separate layers of the artwork and properly define the layers as White 1, White 2, etc. so that the appropriate number of printing plates is produced by the printer.

16.7 Image Utilization:

All images utilized in the creation of a production art file for packaging should be saved as CMYK, 300 dpi and at 100% scale.

16.8 Image Manipulation:

Due to certain compatibility issues that exist between Adobe® Illustrator® and Adobe® Photoshop®, the preferred application for manipulating digital images is Adobe® Photoshop®. Note: Always include the original Adobe® Photoshop® file as a supporting asset with any submitted production art file. These file(s) should be sent as layered “.PSD” files. In rare cases, there may be an image that can only be treated as “Position Only” artwork. Be sure it is clearly marked as either: “Position Only”, “For Position Only”, or “FPO”.

17.0 BARCODES:

17.1 Barcodes and BWA (Bar Width Adjustment):

When incorporating barcodes within a production art file, it is important to understand that the printer, in many cases, will need to modify barcode content in order to include the required bar width reductions needed to enable proper reproduction on press. As a result, it is important to communicate specific details pertaining to the “build” of the barcode to the printer. The printer will use this information to determine if the bar code file can be used as is, or if it must be replaced to ensure proper print reproduction. For information pertaining to the proper utilization of barcodes within 3M packaging artwork, please reference to the following 3M Corporate General Specifications for detailed requirements:

- **CRD 138** – Printing Requirements for “Point-of-Sale” Barcode Symbols using EAN/UPC Symbolology’s
- **CRD 158** – Printing and Location Requirements for ITF-14 (Interleaved 2 of 5) Barcode Symbols
- **CRD 161** – Printing of Barcode Symbols for the Health Care Industry

Notes:

Include only the barcode used in the final graphic file. Barcodes are occasionally obtained in sets or groups of related products. Do not include the entire group or set within a single production art file.

If the bar code symbol needs a certain orientation and/or minimum size, these requirements will be noted on the blueline (outside the print area). Some printing processes give much better quality results if the bars of the symbol run in the direction of print, also known as “web direction”.

If the bar code symbol must be placed in an exact position or within a general area, the blueline will indicate the placement and/or orientation to the degree needed in that situation.

17.2 Bar code symbol Size, Placement and Orientation:

If there are no specific requirements for the bar code symbol placement, size, or orientation, nothing will be indicated on the blueline. Truncation of the “point-of-sale” barcode symbol is not allowed less than 85% magnification factor without prior approval from 3M. Reference CRD 138 for magnification and truncation specifications.

Note: Bar code symbols must not be placed on top of cut or perforated lines, whereas other copy may be so positioned.

17.3 File Requirements:

Every package printed with a bar code symbol must have a bar code symbol file included in the collected file. The correct bar code symbology (UPC-A/ EAN, ITF, etc.) and magnification size (100% [preferred] or 85% minimum for UPC/EAN, etc.) must be

used in producing the symbol file. For any other sizes, questions or truncation, reference **Corporate General Specs (CRD) 138, 158 and 161**.

17.4 Bar Width Adjustment (BWA):

Bar widths must be adjusted to meet quality requirements of the printed bar code symbol. In the production art file, the following default bar width adjustments (BWA) must be used, unless otherwise noted.

17.5 Purchased Bar Code Files:

Ensure digital bar code symbol files from a third party are produced in compliance to the corresponding 3M Corporate General Specifications supporting barcode creation/barcode print reproduction and include the entire symbol file in the collected file, denoting the BWA used in producing the symbol. **Reference Corporate General Specs (CRD) 138, 158 and 161 for further questions.**

In addition to the above, the following note must be included within the design slug in the artwork file to communicate to the printer what BWA was used in creating the bar code symbol:

This bar code symbol was produced using a bar width adjustment of ____ (example: - .003). If this does not meet the needs of the printing process or equipment to be used, the printer is responsible for recreating the file using the appropriate bar width adjustment while meeting 3M quality requirements.

18.0 INFORMATION BOX (aka Tagline, Shirt tail or Legend):

All production art files submitted to 3M must contain the 3M Supplied information box which communicates support information about the production art file (refer to Figure 3 below for a visual reference). Content to be included in this information box is as follows:

| 3M Science. Applied to Life.™ Region and BG Ex: EMEA CBG | | Inks / Coatings | | Inks / Coatings - Back | | Asset ID and H2B Information | |
|---|----------------------------|--|--|-----------------------------|--|---|--|
| File Information | | Yellow White | | Black | | Asset Information | |
| File Name: | CAT#_Package Type_AW Spec# | Cyan White 2 | | 285 | | Asset Information | |
| Date: | XX/XX/20XX | Magenta 3M Red | | | | Asset Information | |
| Catalog #: | JOB-20CT-CA | Black Spot UV | | | | H2B Information | |
| Artwork Spec. #: | 0123456.1 | Process Match | | Process Match - Back | | Special Instructions | |
| Material Spec. #: | 34-2000-1234-5 | 10BCP 0-5-100-0 | | | | Used to communicate anything special needing to be addressed outside of production art. | |
| Stock #: | 78901234567 | 28SCP 90-47-0-0 | | | | Primary Display Sizing | |
| *UPC # / %: | 123456789012 / 100% | | | | | POP: X in (mm) x Y in (mm) x Z in (mm) | |
| Details #: | PKG-DIELINE-0000000-001 | | | | | Premedia Partner Branding Address Area | |
| Designer(s): | Project Manager/Marketer | | | | | | |
| Package Type: | Primary CTN | | | | | | |
| *UPC Statement | | Premedia Partner Limitation of Liability Can be two lines | | | | | |

PROOF REQUIRED

Send preprint proof to: example_email@mmm.com
Refer to 3M Corporate General Spec 205 for details.

Premedia Partner Info: 1234567
Secondary Premedia Partner Info: 1234567

3M Science.
Applied to Life.™

Premedia Partner Branding
Address Area

- Required File Information:
 - File Name – Use one of two approved nomenclatures defined by your business.
 - Date – Last time was modified.
 - Catalog number.

- Artwork Spec number.
 - Material Spec number.
 - Stock number.
 - Dieline number – Supplied by 3M
 - UPC number and percentage – BW information contained in disclaimer.
 - Requester(s) – Project Manager, Packaging Solutions and/or Marketing.
 - Package Type – For those not including in their filename
- **Inks / Coatings:** Used to itemize the various print colors or treatments (Ex: Spot UV) that will be printed on the front side of the packaging substrate. Definitions can be represented as either process (CYMK) and/or spot color definitions. Both Front and Back colors must be incorporated into the information box.
 - **Process Match:** Used to itemize various print colors commonly used in 3M packaging, but not separated out as a spot color (e.g.: 3M Trademark Colors including 3M Red). Under Process Match, define the color and its associated breakdown in CYMK equivalents.

Note: It is acceptable to include additional information within a production art file information box based on requirements from a given 3M business and/or the graphic designer. Refer to section 6.5 for color translation values.

- **Proof Required:** This statement is required for all production artwork created. If uncertain it should be added, reach out to your 3M representative for details.

This statement is intended as a reminder to all printers; an approved proof of their work is required to move the item forward.

The “PROOF REQUIRED” statement is to be followed by the email address provided by your regional contact and the copy: “Refer to 3M Corporate Reference Document 205 (CRD 205) for details”.

- USAC
 - CBG: cbg_proof_review@mmm.com
 - SIBG: usac_sibg_printproof@mmm.com
 - TEBG: usac_tebg_printproof@mmm.com
- EMEA
 - CBG: EMEA_CBG_prepress@mmm.com
 - SIBG and TEBG: EMEA_SIBG_TEBG_prepress@mmm.com

Example:

PROOF REQUIRED

Email Proof to: cbg_proof_review@mmm.com
Refer to 3M Corporate General Spec 205 for details

- **Premedia Partner Area:** This space can be used to include all needed information specific to the premedia partner.

19.0 PRODUCTION ART FILE NAMING CONVENTION*:

All production art files submitted to 3M upon final approval should be identifiable by a 3M proprietary part number. This proprietary part number shall be assigned and provided to the premedia partner by 3M. Below are the 2 individual numbering system options using the following numbers and descriptions:

Version 1:

- **Material Spec along with the Artwork Spec**
 - Ex: 34-2000-1234-5_01234567-1

Version 2:

- **Catalog (Cat.) Number:** Unique or commonly used number assigned that defines a unique or group of packaging finished or semi-finished goods. Typically assigned by Marketing or Marketing communications.
- **Packaging Description:** An abbreviated packaging description that defines the packaging type (i.e. P BC = Back card, I CTN = Carton/See below)

Primary Packaging examples:

| | | | | |
|---|---|--|--|--|
| <input type="checkbox"/> P AC = Aerosol Container | <input type="checkbox"/> P BXP = Boxelope | <input type="checkbox"/> P L = EAN Label | <input type="checkbox"/> P L = Label Clear | <input type="checkbox"/> P L = UPC Label |
| <input type="checkbox"/> P BC = Backcard | <input type="checkbox"/> P CP = Caddy Pack | <input type="checkbox"/> P ENV = Envelope | <input type="checkbox"/> P L = Label White | <input type="checkbox"/> P W = Wafer |
| <input type="checkbox"/> P BCB = Backcard Back | <input type="checkbox"/> P CAN = Can | <input type="checkbox"/> P F = Film | <input type="checkbox"/> P L = Over Label | <input type="checkbox"/> P WR Wrap |
| <input type="checkbox"/> P BCF = Backcard Front | <input type="checkbox"/> P CARD = Card | <input type="checkbox"/> P FOLD = Folder | <input type="checkbox"/> P L = Promo/Special Label | <input type="checkbox"/> P W FRT = Wafer Front |
| <input type="checkbox"/> P B = Bag | <input type="checkbox"/> P CTN = Carton | <input type="checkbox"/> P FRAME = Frame | <input type="checkbox"/> P SHT = Sheet | <input type="checkbox"/> P W RR = Wafer Rear |
| <input type="checkbox"/> P BB = Belly Band | <input type="checkbox"/> P CNT CARD = Center Card | <input type="checkbox"/> P FRT CARD = Front Card | <input type="checkbox"/> P SV = Sleeve | |
| <input type="checkbox"/> P BC = Blister Card | <input type="checkbox"/> P CORE = Core | <input type="checkbox"/> P HEAD CARD = Header Card | <input type="checkbox"/> P TR = Tray | |
| <input type="checkbox"/> P BOTTLE = Bottle | <input type="checkbox"/> P CO P = Coupon on Pack | <input type="checkbox"/> P INS = Insert | <input type="checkbox"/> P TUBE = Tube | |

Intermediate Packaging examples:

| | | | | |
|---|--|---|--|--|
| <input type="checkbox"/> I B = Bag | <input type="checkbox"/> I CO P = Coupon on Pack | <input type="checkbox"/> I INS = Insert | <input type="checkbox"/> I L = Over Label | <input type="checkbox"/> I TR = Tray |
| <input type="checkbox"/> I CTN = Carton | <input type="checkbox"/> I F = Film | <input type="checkbox"/> I L = Intermediate Label | <input type="checkbox"/> I L = Promo/Special Label | <input type="checkbox"/> I L = UPC Label |
| <input type="checkbox"/> I CSF = Clip Strip Front Pricing Sticker | <input type="checkbox"/> I FOLD = Folder | <input type="checkbox"/> I L = Label Clear | <input type="checkbox"/> I SHT = Sheet | |
| <input type="checkbox"/> I CSB = Clip Strip Back Pricing Sticker | <input type="checkbox"/> I HEAD CARD = Header Card | <input type="checkbox"/> I L = Label White | <input type="checkbox"/> I SV = Sleeve | |

Shipper Packaging examples:

| | | | | |
|---|---|---|---|---|
| <input type="checkbox"/> SH ASGR = Account/Seasonal Graphics Required | <input type="checkbox"/> SH DS = Display Shipper | <input type="checkbox"/> SH INS = Insert | <input type="checkbox"/> SH L = Promo/Special Label | <input type="checkbox"/> SH TR = Tray |
| <input type="checkbox"/> SH CC = Cap Case | <input type="checkbox"/> SH DSL = Display Shipper Label | <input type="checkbox"/> SH L = Label Clear | <input type="checkbox"/> SH SHT = Sheet | <input type="checkbox"/> SH L = UPC Label |
| <input type="checkbox"/> SH CCL = Cap Case Label | <input type="checkbox"/> SH FOLD = Folder | <input type="checkbox"/> SH L = Label White | <input type="checkbox"/> SH L = Shipper Label | |
| <input type="checkbox"/> SH DS = Display | <input type="checkbox"/> SH I = In Line | <input type="checkbox"/> SH L = Over Label | <input type="checkbox"/> SH = Shipper Preprint | |

Ex: 3MCat# P CTN 018123-1 and 3MCat# P L 018234-1

Notes:

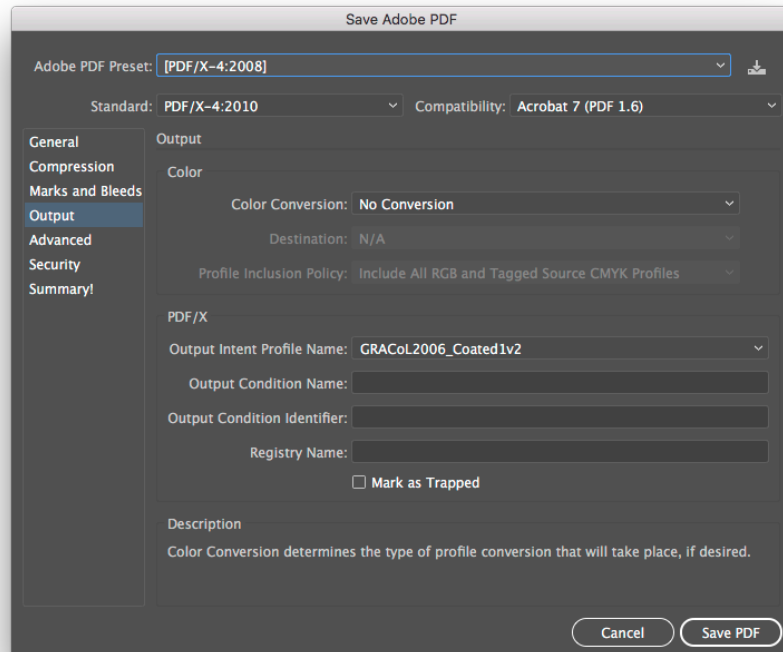
In the event that a dieline is not provided by 3M, the production art file name should exclude reference to a dieline.

20.0 PDFx4 Creation:

PDF/X-4 GUIDELINES Deliverable will be a **PDFx4** standard PDF file containing an embedded icc profile.

20.1 Profiles

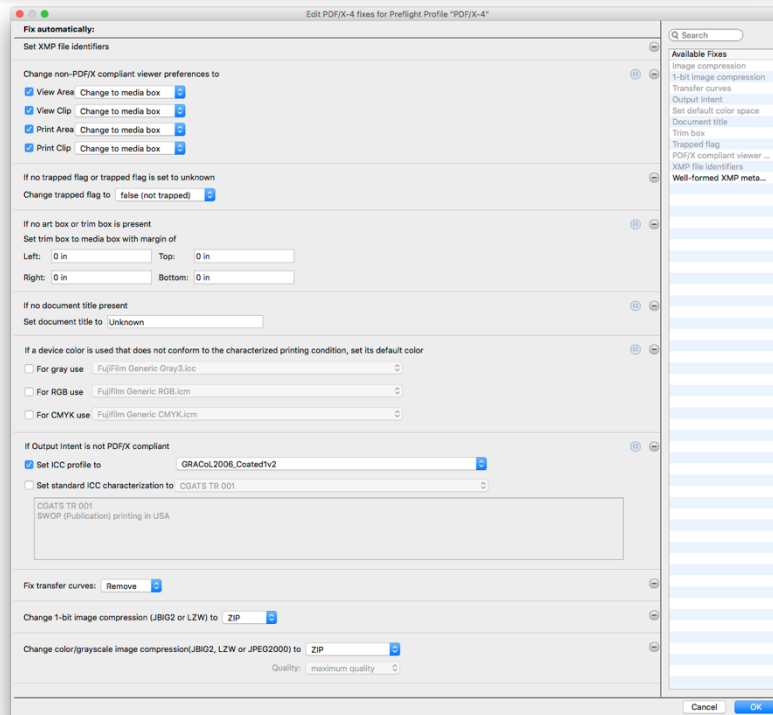
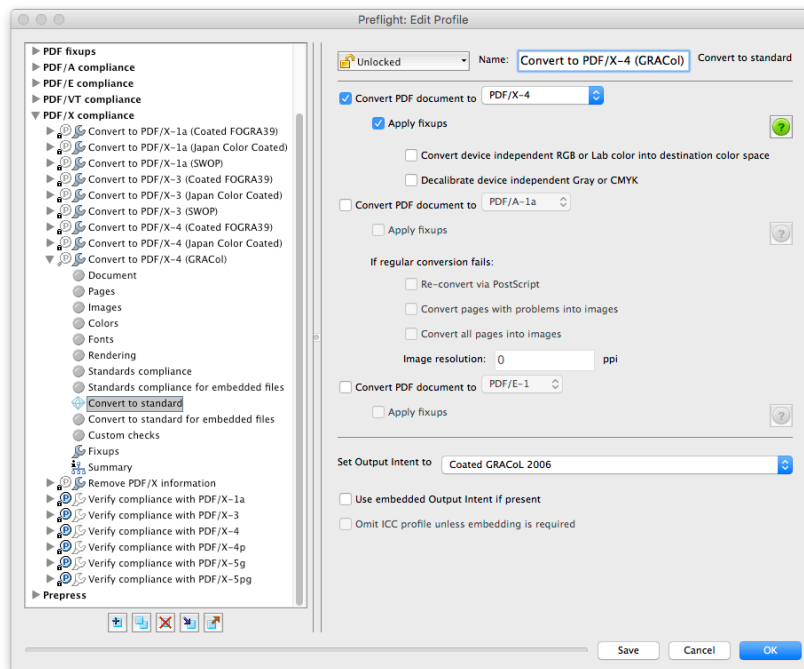
GRACoL2013_CRPC6.icc in USAC (or in EMEA refer to ECI download section directly: <http://www.eci.org/en/downloads>) as the designated icc profile.



Adobe Creative Cloud: Select the Adobe PDF Preset: **[PDF/X-4:2008]** and assign profile or the Output Intent Profile in the Output panel.

Esko / Enfocus PitStop: Edit the **PDF/X-4** Preflight Profile Fixes and assign profile or the Output Intent Profile in the Output panel

Adobe Acrobat: Edit the **Convert to PDF/X-4** Preflight Profile and assign the Set Output Intent to assign appropriate profile or the Output Intent Profile in the Output panel as in the Convert to standard panel.



22.0 FILE COLLECTION:

Upon final approval, all production art files and supporting assets will need to be transferred to 3M for archival/record retention purposes. To ensure that submitted files are not rejected by 3M, please adhere to the following guidelines:



- **Artwork file¹** - Adobe Illustrator® (preferred for packaging) or InDesign® (preferred for collateral/page layout) file (Creative Cloud preferred)
- **Fonts:** With use of Adobe Font Library and 3M Policy not to share fonts with graphics, font collection is not required.*
 - **3M Circular would be exception to rule if applicable**
 - **Purchased fonts are to be included, but not shared with supplier.**

NOTE: No font software should ever be transmitted or shared in compliance with font licensing agreements.

- **Graphics/Images/Photography:** Collect all graphics, images, and/or photography included within the production art (even if they are embedded). See Figure 5 above for details.
- **PDF Document:** Two PDFs are generated and implemented into the 3M system/process as defined. Include approved final **PDFx4**, also create a **Reference Low Resolution PDF²** (reduced size) – specifications are listed below
- A 'LOW RESOLUTION / NOT FOR PRINT' Watermark must be present in the artwork outside the graphic area.

PDF Naming Conventions: Align with one of two nomenclatures

PDFx4 (full size/high resolution), refer to section 21.0 for creation
("Filename".pdf - i.e. 0123_P CTN_6-6573-3.pdf , 34-8723-1234-5.pdf)

Reference Low Res PDF (reduced size/low resolution), refer to section 11.2 for creation (“Filename”_Low Res.pdf - i.e. 0123_P CTN_0567890-1_LowRes.pdf, 34-8723-1234-5_LowRes.pdf)

Notes:

Prior to submitting approved production art files to 3M, it is the graphic designer’s responsibility to preflight the artwork and check for any file preparation errors. Any file preparation errors found by 3M or 3M’s printers will be sent back to the graphic designer for correction at the expense of the graphic designer, not 3M.

Ensure that all electronic documents have their appropriate file extensions (i.e. “.EPS,” “.PSD,” etc.) called out. After the period (.), only the two or three letter file extension should be used, and no version numbers or other information should exist.

Always include original image files as separate linked files, do not embed images within the Adobe® Creative Suite® file.

In order to maintain proper links, keep all image files Links and Fonts folders in the same folder level as the Adobe® Creative Suite® file. They can be placed in a folder titled “Links” (See Figure 5).

During the final production art file collection process, graphic designers should include only the editable version of the production art file. In certain situations, an outlined version of the production art file may be required (commonly when distributing to International printers). In this situation, it will be the responsibility of the resource handling the distribution of production art files to provide the printer with the outlined version.

The naming convention for a “compressed file” shall default to the file name associated with the native Adobe® Creative Suite® document (see Figure 5 – top left image for example). In the event that a 3M business would like a different naming convention at the “stuffed file” level, it is acceptable to deviate (see Figure 5 – right image for example).

***²Creation of LOW-RESOLUTION PDF may not be part of your local workflow.**

Reach out to your 3M contact for further direction.

³No working files should be loaded onto PLM. Only PDFx4 or a reference PDF may be uploaded to PLM (See section 10 for PDFx4)

*** No font software should ever be transmitted or shared in compliance with font licensing agreements.**

23.0 FILE TRANSFER:

All production art must be compressed in an archive format and saved in a single folder in order to reduce file storage requirements and overall file management. Format option: .zip. This will be the final file placed into 3M Archive (Blue).

24.0 DELIVERY METHOD:

All production art files will be submitted to 3M using the following method:

- **Preferred:** The primary method for delivering approved production art to 3M is via PLM (Client Application) by attaching the PDFx4 production art file into PLM.
- **Applicable** .zip file will be uploaded to Blue.

APPENDIX I:

Design Operations

Primary Package - Net Contents Minimum Typeface Chart

| USA | MEXICO | CANADA | Principal Display Panel Size | Net Contents Copy Min. Typeface Size |
|-----|--------|--------|--|---|
| | | | Area Range | Inch (mm) |
| ● | ● | ● | Up to 5 in ² (Up to 32 cm ²) | .067" (1.7 mm) |
| ● | ● | | > 5 in ² to 25 in ² (> 32 cm ² to 161 cm ²) | .129" (3.3 mm) |
| | | ● | > 5 in ² to 40 in ² (> 32 cm ² to 258 cm ²) | .129" (3.3 mm) (*) |
| ● | ● | | > 25 in ² to 100 in ² (> 161 cm ² to 645 cm ²) | .196" (5.0 mm) |
| | | ● | > 40 in ² to 100 in ² (> 258 cm ² to 645 cm ²) | .258" (6.6 mm) (*) |
| ● | ● | | > 100 in ² to 400 in ² (> 645 cm ² to 2580 cm ²) | .258" (6.6 mm) |
| | | ● | > 100 in ² to 400 in ² (> 645 cm ² to 2580 cm ²) | .387" (9.7 mm) (*) |
| ● | ● | ● | > 400 in ² (> 2580 cm ²) | .516" (13.0 mm) |

This guideline meets the government minimal font size requirements for USA (USA Federal Trade Commission – Fair Packaging and Labeling Act (FPLA) Section 500.1 to 500.29. Reference specific requirements in section 500.21), Mexico (NOM 030 & NOM 050), and Canada Competition Bureau – Consumer Packaging and Labeling

Act (CPLA) Section 14 of the Regulations. Type height of other required information is under Sections 14 to 16 of Regulations.

Note: For product sold in U.S.A., per the FPLA (16 CFR Part 500.6) the separation, location, and type size requirements as set forth in the FPLA **are waived with respect to variety and combination packages** as defined in Part 500. In other words, the net contents statement on a variety or combo pack (as defined in the FPLA) are exempt from the location, type size and separation requirements set forth in the FPLA. The net contents need to be present on the packaging of the product as required in the Act; however, the placement and size of the statement can vary.

ICONS

If an icon is used in the net contents declaration statement, it must be:

- Equal to or greater in height than the net contents text height
- Located to the immediate right of the quantity “count”
- Designed to be a close likeness (non-misleading) of the product in the package

PRINCIPAL DISPLAY PANEL SIZE

If unsure of the definition (calculation) of the Principal Display Panel Size, contact your 3M Product Responsibility Liaison (PRL) and/or 3M Legal contact. For Canada artwork, contact Mark Jacob. In Canada, the net contents type height is based on the Principal Display Surface (typically the surface of the package that the label is adhered to) and not the Panel.

TYPE STYLE – PROPORTION AND PLACEMENT

The ratio of the height of a capital or uppercase letter to its width shall be such that the height of the letter is no more than

3 times its width. The net contents statement must be placed within the bottom 30% of the principal display front panel.

MINIMUM TYPEFACE SIZE EXAMPLES

See below for minimum typeface size examples:

Example #1 (preferred option)

Use of **ALL CAPS** in the net contents statement except the metric units of measure (i.e. m, cm (except “L” [Liter])).

Most commonly used format since it minimizes the overall height of the net contents statement.

3 ROLLS

500 IN (13.8 YD) 12,7 m EA

TOTAL: 1500 IN (41.6 YD) 38,1 m

Note: add translations as needed

If sold in USA only...and the principal display panel size is less than 50 in² the font height should be at minimum .196” (5.0 mm). **Type height is measured based on the height of the capital letters.**

If sold in Canada...and the principal display surface size is less than 50 in² the font height of the numeric “count” portion (i.e. 1, 80, 1000) only in the net contents need to be at least 6.6 mm. **The text only needs to be at least**

1.7 mm if using all UPPER case letters. If using upper and lower case, or lower case only, then type height of text needs to be at least 1.7 mm based on lower case “o”

Example #2

Use of combination of upper- and lower-case letters in the net contents statement.

This option is NOT commonly used.

3 Rolls

500 in (13.8 yd) 12,7 m each

Total: 1500 in (41.6 yd) 38,1 m

Note: add translations as needed

If sold in USA only...and the principal display panel size is 50 in² the font height should be at minimum .196” (5.0 mm).

Type height is measured based on the height of the lower-case letter “o” or its equivalent.

If sold in Canada...and the principal display surface size is 50 in² the font height of numeric “count” portion (i.e. 1, 80, 1000) of only in the net contents need to be at least 6.6 mm. The text only needs to be at least 1.7 mm if using all UPPER-case letters. If using upper and lower case, or lower case only, then type height of text needs to be at least 1.7 mm based on lower case “o”.

(*) = If sold in Canada (per Mark Jacob – 3M Canada 7/25/12), see below:

If sold in Canada, the numeric portion (i.e. 1, 80, 1000) of the net contents must be in **BOLD** or **Semi-Bold** typeface. Use the same BOLD or Semi-Bold typeface for the numeric, unit-of-measure or unit-of-sale copy and product dimensions (i.e. 3 ROLLS 50,8 mm x 45,7 m 6 SHEETS 2 IN x 2 IN (50,8 mm x 50,8 mm) ... contact Rick Bauer to deviate from this requirement. It is important to use the consistent BOLD or Semi-Bold typeface across all packaging for an entire product line or product category. If you condense the BOLD or Semi-Bold typeface, contact Rick Bauer for approval.

Country of Origin information needs to be adjacent to 3M address information and cannot be located on bottom panels of artwork.

Contact your 3M Product Regulatory (PRL)/Tech. Service Lab. Specialist and/or 3M Legal for clarifications or questions.

APPENDIX II:

3M | Design Operations

U.S.A. Code of Federal Regulation (CFR) Title 16 CFR 1500.121

Primary Package – Hazardous Substances Minimum Typeface Chart (*)

Applicable for regulated product packaging sold to consumers in U.S.A. (business to consumer packaging) including if sold typically business to business and sold online via the internet (i.e. Amazon).

(*) = Hazardous substance includes any substance or mixture of substances which is toxic, corrosive, an irritant, a strong sensitizer, flammable or combustible, or generates pressure through decomposition, heat, or other means.

Contact your 3M Product Regulatory (PRL)/Tech. Service Lab. Specialist if you question the 3M product is defined as “Hazardous Substance” and the packaging artwork must meet these U.S.A. Code of Federal Regulation (CFR) Title 16 CFR 1500.121 labeling requirements.

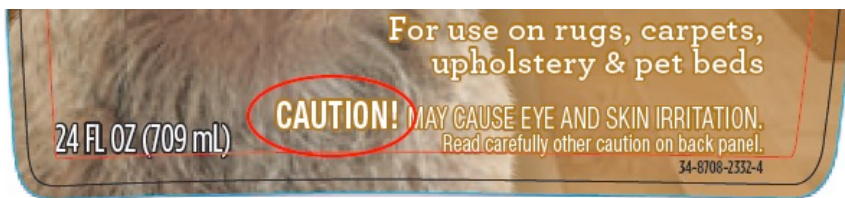
For all other regulated product packaging sold in USA. (i.e. non-hazardous substances or if sold only business to business) contact your 3M Product Regulatory (PRL)/Tech. Service Lab. Specialist to determine its packaging labeling requirements (i.e. OSHA GHS labeling requirements).

Note: Reminder to route all regulated product packaging artwork to your 3M Product Regulatory (PRL)/Tech. Service Lab. Specialist for review and approval.

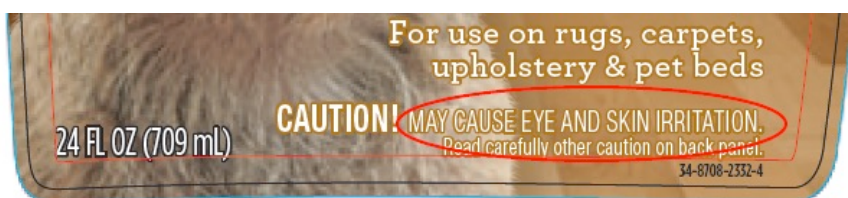
Type Style – Proportion. The ratio of the height of a capital or upper-case letter to its width shall be such that the height of the letter is no more than 3 times its width.

- (1) Signal Word - means the appropriate word “DANGER”, “WARNING”, or “CAUTION”. This copy must appear in all CAPITAL LETTERS on the FRONT of the principle display panel. If the Signal Word is repeated in multiple locations, it should appear in the same size and style, color, and boldness as the statement on the PDP, which would be capital letters.

| Principle Display Panel Area Range | Signal Word (1) (min. height of upper-case letters) | Statement of Hazard (2) (min. height of upper-case letters) | Other Cautionary Matl. (3) incl. Address Block (min. height of upper-case letters) |
|---|--|--|--|
| 0 to 2 in ² | .05” (1.3 mm) | .05” (1.3 mm) | .033” (.85 mm) |
| >2 in ² to 5 in ² | .067” (1.7 mm) | .05” (1.3 mm) | .05” (1.3 mm) |
| >5 in ² to 10 in ² | .1” (2.6 mm) | .067” (1.7 mm) | .067” (1.7 mm) |
| >10 in ² to 15 in ² | .116” (3 mm) | .1” (2.6 mm) | .067” (1.7 mm) |
| >15 in ² to 30 in ² | .129” (3.3 mm) | .1” (2.6 mm) | .083” (2.1 mm) |
| >30 ² | .161” (4.1 mm) | .116” (3 mm) | .1” (2.6 mm) |



- (2) Statement of Hazard - means that wording descriptive of the principle or primary hazard(s) associated with a hazardous substance. Examples “HARMFUL OR FATAL IF SWALLOWED”, “VAPOR HARMFUL”, “FLAMMABLE”, AND “SKIN AND EYE IRRITANT”. This copy must appear in all CAPITAL LETTERS on the FRONT of the principle display panel. If the Statement of Hazard is repeated in multiple locations, it should appear in the same size and style, color and boldness as the statement on the PDP, which would be capital letters.



- (3) Other Cautionary Material (including Address Block) - means all labeling statements, other than “signal words” or “statement(s) of hazard(s)”. This copy must appear in all CAPITAL LETTERS on the front principle display panel or back panel. **IMPORTANT: the name and business address of the manufacturer, packer, distributor or seller, its phone number and website are also considered “other cautionary material” and its copy can appear in either UPPER- and lower-case letters or UPPER case only. The height of the UPPER-case or CAPS letters must meet the minimum height requirement.**

Example:

3M Automotive Aftermarket Division
 3M Center, Bldg. 223-6N-01
 St. Paul, MN 55144-1000
 1-877-MMM-CARS (666-2277)
 3MCarCare.com

All copy must appear in conspicuous and legible copy in contrast by typography, layout, or color to other printed matter. See Section 1500.121 for exact requirements in the 3M Design – Documentation database.

Contact your 3M Product Regulatory (PRL)/Tech. Service Lab. Specialist for exact copy placement and overall requirements.

APPENDIX III:

3M | Design Operations

Net Contents Measurement of Commodity - Copy Guideline

| Imperial | DO's | DONT's | Remarks |
|-------------|--------------------|---------------|--|
| | 1.5 YD | 1,5 YD | DO use a decimal period for imperial (English) dimensions |
| | 2.5 IN | 2.5IN | DO use a space for imperial dimensions between the numeric and text portions of the dimension. |
| | 1.5 IN | 1.5 IN. | DO NOT use any punctuation at the end of imperial unit-of-measure.(not a legal requirement) |
| | 2 YD | 2 YDS | DO NOT pluralize unit of measure symbols (not a legal requirement) |
| | 1 IN x 4 IN | 1 x 4 IN | DO follow each numeric value with the unit-of-measure symbol. |
| | 10 U.S. FL OZ | 10 FL OZ | DO precede any liquid volume English unit of measure symbol with "U.S." |
| | 1 IN/PO | 1 IN | DO translate the imperial unit-of-measure into French Canadian if for sale in Canada. |
| | 0.5 IN | .5 IN | DO add a "0" to the left of the period if the stated quantity is less than 1. This is recommended but not required if space limitation. |
| | 2.5 IN or 2 1/2 IN | | Examples of how fractions can be expressed. Add space between the whole number and fraction (ie. 2 1/2) |
| | 1/2 IN | 1/2 IN | DO NOT superscript or subscript fractions |
| | 1 IN x 4 IN | 1 IN X 4 IN | RECOMMENDED (not req'd) to use the lower case "x" in a stated width and length commodity. It is important to use the same consistent format throughout the product line or commodity. |
| See Remarks | See Remarks | | If space is an issue, using all upper case letters will allow you to use a smaller typeface size. See Primary Package - Minimum Typeface Chart ex: 1 ROLL 3/4 IN X 1296 IN (19 mm x 32.9 m) |
| See Remarks | See Remarks | | DO NOT translate the imperial unit-of-measure into Spanish |
| See Remarks | See Remarks | | DO NOT use imperial unit-of-measures if Int'l only (non-English). |
| Metric | DO's | DONT's | Remarks |
| | 2,5 cm | 2,5cm | DO use a space between the numeric and unit-of-measure. Exception: All <u>International</u> only packaging artwork |
| | | | Exception: Omit space between the numeric and unit-of-measure if pkg. is too small -or- overall package design is compromised. (Approved by Nancy Alcorn 11/14/97) |
| | 2,5 cm | 2.5 cm | DO use a comma for metric dimensions Exception: If language is Chinese or English (for Great Britain) then use period. |
| | 2,5 cm | 2.5 cm. | DO NOT use any punctuation at the end of the metric unit-of-measure. |
| | 2,5 cm x 10 cm | 2,5 x 10 cm | DO follow each numeric value with the unit-of-measure symbol. |
| | 1,5 kg | 1 kg 500 g | DO NOT mix units in stating metric dimensions. |
| | 0,5 mm | .5 mm | DO add a "0" to the left of the comma if the stated quantity is less than 1. This is recommended but not required if space limitation. |
| | 2,5 cm | 2 1/2 cm | DO NOT use fractions as shown. |
| | 2,5 cm x 10 m | 2,5 cm X 10 m | RECOMMENDED (not req'd) to use the lower case "x" in a stated width and length commodity. It is important to use the same consistent format throughout the product line or commodity. |
| | mm, mL | MM, ML | DO use lower case letters for metric unit-of-measure symbols, except for L and mL (e.g., 20 mL). (Note: although either "mL" or "ml" to represent liters and milliliters is technically acceptable in the US, upper case for the "L" is required by some countries and preferred in the US in order to avoid confusing it with the digit for "one.") |
| See Remarks | See Remarks | | DO NOT translate the metric unit of measure into either French or Spanish |
| See Remarks | See Remarks | | DO use imperial and metric unit-of-measures if product is sold in United States. |
| See Remarks | See Remarks | | DO use metric only unit-of-measures if product is Spanish only (exception: if sold in Puerto Rico). |
| See Remarks | See Remarks | | DO use parentheses around the metric measurements on English only packaging if imperial and metric measurements are on the same line. |
| See Remarks | See Remarks | | DO NOT use parentheses around the metric measurements if other than English only packaging. |

Bill Herzog
Revised 3/30/12
Supersedes 8/27/02

**** End of Document ****