SHRINK SLEEVE SOLUTIONS

Century Label™

centurylabel.com 800.537.9429

SHRINK SLEEVE OVERVIEW

Shrink sleeves are successful in a wide range of markets largely due to their aesthetic appeal and functional versatility. These highly attractive labels are digitally or flexographically printed on a flexible shrink film that reduces in size through the application of heat or steam. Once the film shrinks, it conforms tightly to the shape of the container or product, creating a sleek label and product package/image.

Advantages of Shrink Sleeves:

- 360° display of brilliant artwork and text, shrink sleeves give the product maximum aesthetic appeal and marketing exposure
- Capability of head to toe coverage
- Full body labels can display product inside by using clear windows
- Tamper evident seals will allow for ease of opening, and maximizes security
- State of the art print quality
- Reverse printing protects ink from scratching and wear while maintaining high gloss finish
- Shrink films are ideal for unusually shaped containers that distinguish the product on the shelf

360° Degree Display

SLEEVE APPLICATIONS

Tamper Evident Bands

- Increasingly popular for consumer protection in the pharmaceutical, vitamin, food and beverage industries

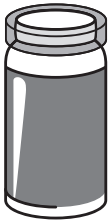
Full body Shrink Sleeves

- Gaining popularity in the beverage, personal care, food, household chemical, and automotive industries

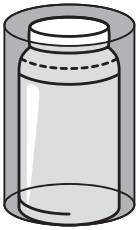
Multi-Packs

- Great for product promotions and cross branded items. Product labels remain intact once promotional wrap is removed

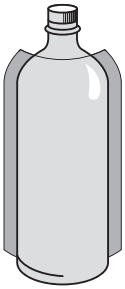
SHRINK SLEEVE AND BAND APPLICATIONS



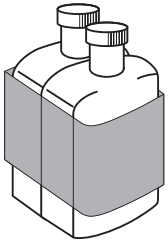
Neck Band



Shrink Label and Tamper Evident Band



Full Shrink Label Conforming to Bottle Shape



Twin Pack

MATERIALS AND VARNISHES

Materials:

PVC – polyvinyl chloride
PETG – polyethylene terephthalate glycol modified

PVC Advantages

- Excellent printability
- Shrink up to 56% medium
  64% high

PETG Advantages

- Up to 78% shrink
- Highest level of clarity
- Environmentally friendly
- Machine direction growth
  – minimal smiling or frowning
- High shrink force
- Softer material better for squeezable applications

Varnishes:

Digital Printing:

- Slip varnish is added to shrink sleeves to help with proper COF (coefficient of friction) and ink transfer. The ink can transfer off the sleeve if a varnish is not applied.
- Varnishing shrink sleeves is standard practice. Varnish should always be added unless otherwise requested.
- The only time varnish is not recommended is on shrink sleeves that are hand applied and have large clear zones. It can cause the sleeve to have a foggy appearance.

HD Flexo Printing:

- Slip agents are added to our white inks for correct COF.

Satin Matte and Soft Touch Matte Varnish also available for full or spot coverage.

Adhesive:

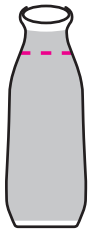
Heat activated adhesive is ideal for adhering sleeves to tapered containers, or similar applications.

Perforations on Shrink Sleeves:

- There are four types of perforations available for shrink sleeves. Several perforation dies are available, and can be custom ordered if the desired size is not offered. The following are the four perforation types:

Horizontal Perforation:

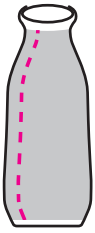
- A horizontal perforation is a single perforation used for tamper resistance on a container. This perforation is measured in millimeters from the top of the sleeve. Horizontal perforations are used for easy removal of the sleeve over a lid of a container.



Horizontal Perf

Vertical Perforation:

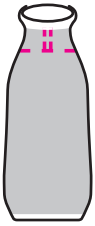
- A vertical perforation is made along the partial or whole length of the sleeve. It is measured from the right fold. Double perforations are standard practice (the sleeve is perforated along both sides of the fold), however, a single vertical perforation is available upon request. Vertical perforations are ideal when the entire sleeve is to be removed.



Vertical Perf

T-perforation:

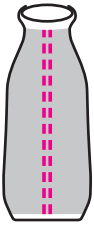
- A T-perforation is made by perforating the sleeve both horizontally and vertically, usually at the top of the bottle around the cap. Both Horizontal and vertical placement locations must be specified by the customer. A T-perforation is used for tamper evidence, such as on the cap of a medicine bottle.



"T" Perf

Zippered Perforation:

- A zippered perforation is made with two vertical perfs, spaced a minimum of 10mm apart, along the whole length of the sleeve. Zippered perforations may be placed anywhere in the art.This type of perf is ideal for easy removal of the entire sleeve, so that the container may be recyced.



Zipper Perf

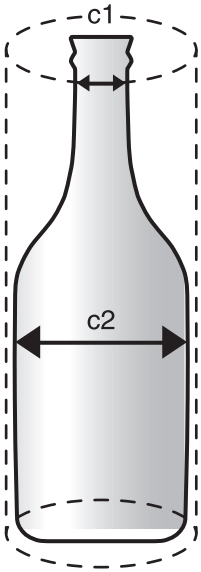
ARRIVE AT YOUR: SIZE AND PERCENTAGE

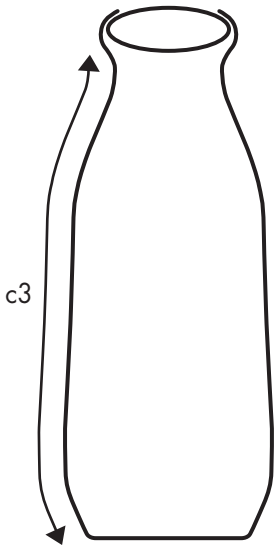
Step 1: Determine Shrink Percentage

- Using flexible tape, measure the smallest and largest circumference of the container. The difference between c2 and c1 is the required shrink percentage.
- Lay flat = circumference in millimeters ÷ 3.1417 + 2 x 1.57.
- All shrink sleeves are measured in millimeters (mm). Measuring the bottle/container must be precise. If measured incorrectly, even the slightest variation will result in the sleeve not fitting properly on the container.

Step 2: Determine Cut Length (Repeat)

- Use a flexible ruler to measure along the container's contour (c3), measuring the distance from the bottom to the top of the container (where you want the sleeve to start and stop).
- Industry standard requires a 2 mm clear at top and bottom of each sleeve. This helps to accomplish accurate cutting and a smoother appearance.
- For best results in proper sleeve size and material selection consult the co-packer or sleeve decorator, if available.





Step 3: Determine Seam Location

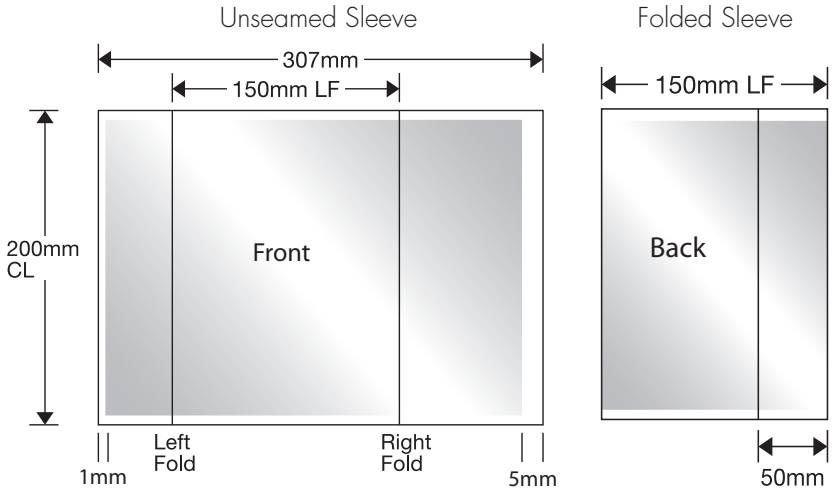
- Century will recommend the optimal fold and seam location, based on previous production experience.

Step 4: Create a Preliminary Template

- Century will use the information gathered from Steps 1 to 3 to create a template for the shrink sleeve.

Step 5: Map Out Distortion

- If required, grid film made to size may be requested to run tests for distortion. The label art can be adjusted to account for distortion (the stretching of an element of the artwork out of its normal shape when printed) before it goes to print. Once the sleeve is applied, the element that was distorted will appear correctly on the container.

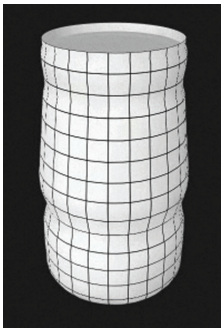


Example of sleeve layout and fold locations.

Adobe Reader can be a very powerful way to share the shape and graphics of the shrink sleeve. PDF files with 3D content (or simply "3D PDF files") allow you to see your shrink sleeve in 3D, saving you the effort of imagining how it fits together. Also, navigation features are available that will allow you to zoom into parts of the artwork and even rotate the artwork a full 360°.

Additionally, we can help fit your artwork to the shape of your container by applying conical warps and adjusting your artwork for shrink sleeve distortions.

Step 1: Create the shape of container.



Step 2: Shrink sleeve to fit container using distortions.

Step 3: Apply artwork to shrink sleeve and create a 3D PDF file.

TERMS AND DEFINITIONS

Layflat:

- When viewing the sleeve, the layflat is the fold to fold width of the seamed sleeve (sleeve is already seamed and folded).
- Digital Layflat minimum is 29mm.
- Digital Layflat maximum is 157 mm.
- HD Flexo Layflat min. is 29mm
- HD Flexo Layflat max. is 200mm

Cut Length:

- Total dimension from top to bottom of the finished sleeve in millimeters.
- Cut length minimum is 25mm.
- Cut length maximum is 420 mm.

Slit Width:

- Width of the film before seaming.
- Digital Slit width maximum is 317mm.
- HD Flexo LF width max. is 403mm

Art Width: Size of the artwork before seam allowance and overlap included.

How to calculate art width:

- Take your layflat width and multiply by 2 + 2mm of art underlap.
- This is a measurement the graphic artist will need.

Critical Art Height:

- This is the cut length (calculated above) minus 4mm of clear area.
- This allows for 2mm of space on the top of the container and 2mm of space on the bottom of the container.
- When the sleeve is applied on the container, this ensures correct graphic placement.
- This is the second measurement that the graphic artist will need in order to set up the artwork on the sleeve.

Folds:

- The sleeve is printed as a flat sheet and then seamed during finishing. The folds are located on each side of the finished sleeve. The seam is where the sleeve is glued together on the back side.
- For Machine Application, a seam is to be offset from center of sleeve. The ratio would be 25% and 75%, left fold/right fold.
- Fold locations may be adjusted if specified by the customer or contract decorator.
- The fold with the shortest width must be located to the left of the shrink film, and should be no smaller than 18mm from the seam.

Shrink Sleeve Checklist:

Remember the following when trying the shrink sleeve product line for the first time:

- √ Send in two containers to be measured
- √ Determine lay flat and cut length
- √ Determine what shrink material will suit your container best
- √ Determine if you need a perforation (T-Perf, horizontal, or vertical)
- √ Determine seam locations, standard center seams for hand application. For machine application, seam is offset with recommended 25%/75% ratio.
- √ How is the shrink going to be applied (dry heat or steam heat)
- √ Artwork will follow standard art procedures
- √ Vector layered art is preferred for digitally printed sleeves and required for high definition flexographically printed sleeves.
- √ Template can be provided to assist with art layout
- √ Press proofs and/or spec runs are required for color critical or long run shrink sleeve orders
- √ Shipping will be next day air in all cases, unless a waiver is signed to ship differently
- √ Friday shipping is not recommended due to climate conditions
- √ When working with a sleeve decorator or co-packer, request specific size and sleeve material recommendations.

ART PRODUCTION LAYOUT FORM

Shrink Sleeve Art/Production Layout

Century Label™

Customer # _____

Order # _____

Date: _____

Layflat Width
Digital:
154.5mm max, 30mm min
HD Flexo:
202mm max, 30mm min
(*2 =) [ ]

Art Width [ ]

(+ 2mm underlap =)

Total Art Width [ ]

(+ 6mm clear =)

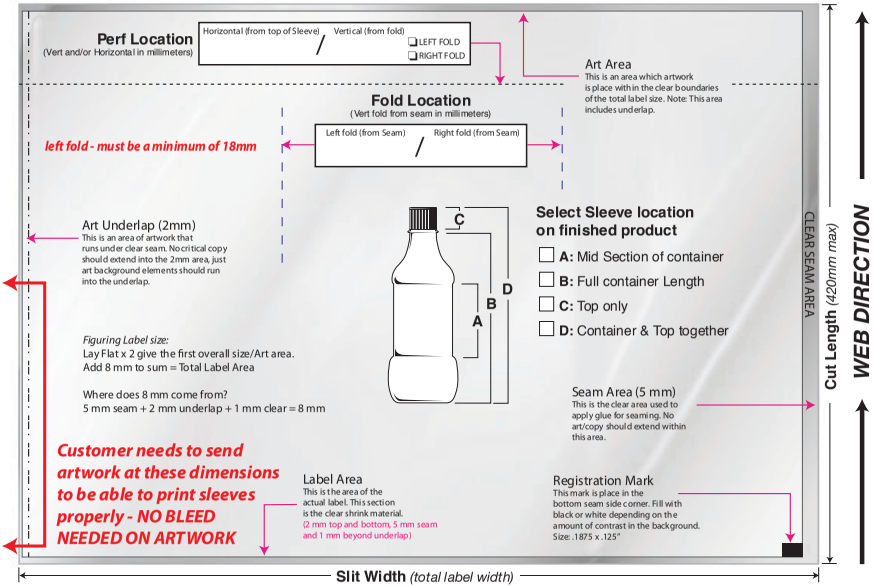
Slit Width [ ]

Cut Length
(420mm max) [ ]

(- 4mm clear =)

Critical Art Height [ ]

Basic Shrink layout



SPECIAL NOTE: Need to see bottle sample to ensure correct sleeve production

Calculating Layflats:

Layflat = Diameter in millimeter + 2 millimeter x 1.57
Example: 89mm diameter + 2mm = 91mm x 1.57 = 142.87mm
**(note: always round up to the nearest millimeter)

Calculating inches to millimeter:
Millimeter = inches x 25.4
Example: 8 inches x 25.4 = 203.2mm

Calculating millimeters to inches
Inches = Millimeter divided by 25.4

Calculating diameter when circumference is known
Diameter = Circumference divided by 3.1417
Example: 2-3mm divided by 3.1417 = 64.6mm in diameter.

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Production Notes and Requirements

- Standard amount of clear is 2mm top & bottom.
- Add a register tick .1875 x .125 in lower right corner for cut and stack registration if needed.

Select Process: ☐ Digital ☐ HD Flexo

Shrink Material Required/Recommended:

_____

Special Notes and Instructions:

_____

_____

_____

_____

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AWARD WINNING LABELS

GOLD INK AWARDS

The shrink sleeve for The Eighteenth Sun Imperial Wheat IPA took home a Pewter Award in the Gold Ink Awards, Digital Printing, Labels & Packaging category.

The Tie Dyed Pale Ale shrink sleeve also won a Pewter Award in the Gold Ink Awards, Digital Printing, Labels & Packaging category.

PSDA PEAK AWARDS

The Herald Imperial Pumpkin Ale shrink sleeve received 1st Place in the PSDA PEAK Awards Best Digital Solution for Customer category.

The shrink sleeve for Red Flyer Ale picked up a Silver Award at the Print Services & Distribution Association PEAK Awards.

HP AWARDS

The Lemon Verbena shrink sleeve landed the 1st Place Award for the Shrink Sleeve Category in the HP Print Excellence Awards competition.

The shrink sleeve for 30 Minute Coma BSIPA took top prize in HP's Inkspiration Awards for the Americas, Alcoholic Beverage category.