

Section E

Available Display Surface (ADS)

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Note:

The three tables in this section, which summarize the information about calculating ADS, are repeated in the special pull-out section of this toolkit, Section K – Tools and Templates.

Table E1: Definition of Available Display Surface (ADS)

Table E2: Summary – Guidance on Measuring ADS

Table E3: Summary – Calculating ADS for Different Packaging Types

Section E

Available Display Surface (ADS)

1. Calculating the Available Display Surface

Available Display Surface is the surface of a food package that is available to support labelling information. The ADS is usually determined by numerical calculation.

The calculation of the Available Display Surface is a pivotal concept in the application of the nutrition labelling requirements, because the choice of a NFT format and its size are based, in part, on the ADS of the package.

In general, large packages must display the most desirable NFT formats.

- The most “desirable” formats are the most legible. For example, the Standard Format is considered more readable, and hence more desirable, than the Bilingual Horizontal Format and must always be given first consideration.
- The largest versions are more desirable than smaller versions of a given format.

Smaller packages may display smaller versions of a specific NFT. See the preceding chapter, Section D, for a *Hierarchy of Formats*.

General Calculation Rules: A Definition of ADS [B.01.001] Most Pre-packaged Products

The ADS is defined as the *total surface* of a package and **includes**:

- the bottom of the package as long as the contents of the product do not leak or are not damaged if the product is turned over.

The ADS **excludes**:

- any area of the package where a label cannot be physically applied;
- any area where information cannot be legibly set out or easily viewed by the purchaser under customary conditions of purchase;
- any part of a label that is destroyed when the container is opened, except if the product is intended to be eaten at a single eating occasion (single serving containers); and
- the area occupied by the Universal Product Code (UPC) symbol.

Ornamental Containers

The ADS is the total area of the bottom of an ornamental container or the total area of both sides of the tag attached to the ornamental container, whichever is greater. The area occupied by the Universal Product Code (UPC) symbol is excluded from the ADS.

Definition: An **ornamental container** is a container that, except for the bottom, does not contain any promotional or advertising material thereon (other than a trade mark or common name) and that, because of any design appearing on its surface or because of its shape or texture, appears to be a decorative ornament and is sold as a decorative ornament in addition to being sold as the container of a product [B.01.001].



The container on the left is an ornamental container. The container on the right is no longer considered an ornamental container as it has a label affixed to the top of the container.

Decorative Containers: Ornamental Containers Versus Decorative Containers

A distinction must be made between an ornamental container and a decorative container. Ornamental containers have the potential for an extended life, as they are reusable. Decorative containers, although aesthetically pleasing, are usually not reusable because they are not sturdy enough and often get torn or damaged upon opening. Ornamental containers must be substantial enough to be sold on their own merit (i.e., without the food). Ornamental containers are usually made of metal (e.g., cookie tins), plastic or glass (e.g., candy-filled figurines). On the other hand, fabric-covered or embossed cardboard boxes for chocolates (e.g., for Valentine's Day) are normally considered decorative rather than ornamental. There are no special exemptions for measuring the ADS of decorative containers.



This decorative valentine box is not an ornamental container and is not subject to any special considerations with respect to ADS.

Tags

Tags may be used on ornamental containers, on packages to which a label cannot be affixed and on smaller packages where the use of alternate methods of presentation is permitted. (See the preceding chapter for decision trees for Standard/Horizontal/Linear Formats, for Simplified Formats, and for the Aggregate Format — Different Kinds of Food.)

The definition of ADS, as set out in Section B.01.001, states that the total area of both sides of a tag attached to a package to which a label cannot be physically applied is considered ADS. The ADS does not include the area occupied by the Universal Product Code (UPC) symbol.

The Nutrition Facts table may appear on either side of a tag and **any version (size) of a suitable format may be used** [B.01.454 - B.01.459 and B.01.461 - B.01.464].

Foods which might be labelled with a tag include oils in ornamental bottles, waxed-encased small cheeses in a mesh bag and foil-wrapped milk chocolate Easter eggs in a mesh bags.



The small package exemption (<100 cm² ADS) does not apply to tags.

Table E1: Definition of Available Display Surface (ADS) [B.01.001]

Package Type	Included in ADS	Excluded from ADS
All Packages	<ul style="list-style-type: none"> total area of package include bottom if product will not be damaged or leak if turned upside down 	<ul style="list-style-type: none"> bottom, if product leaks or is damaged if upside down area destroyed when opened (except for single serving containers) area where a label cannot be physically applied area where information cannot be legibly set out or easily viewed UPC
Ornamental Containers	<ul style="list-style-type: none"> total area of bottom or area of tag (both sides), whichever is bigger 	<ul style="list-style-type: none"> top sides UPC
Tags* <ul style="list-style-type: none"> for ornamental containers for packages to which a label cannot be applied for small packages to which alternate methods of presentation apply** 	<ul style="list-style-type: none"> both sides of tag (However, any version (size) of an appropriate format may be used.) 	<ul style="list-style-type: none"> UPC

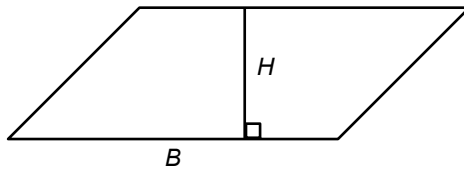
* Note: If tags are used on other pre-packaged products (i.e., not ornamental containers, packages that cannot affix a label, or small packages), then this rule does not apply. See the Table E3: Summary of ADS for Different Packaging Types.

** Note: Use of alternate methods of presentation applies to products using the standard/horizontal/linear and simplified format families, and in some instances, on products displaying an aggregate format – different kinds of food. (See Decision Trees in Sections D and G.)

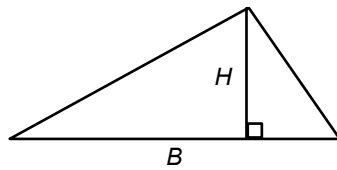
2. Mathematical Calculations for the Area of Some Geometric Forms



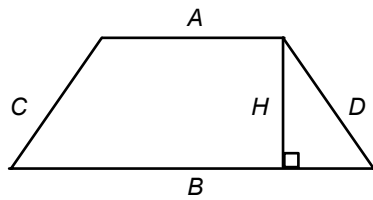
Rectangle:
Area = length(L) x width(W)



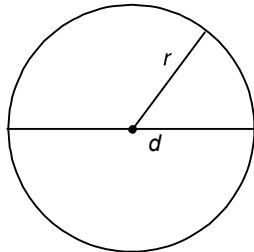
Parallelogram:
Area = base (B) x height (H)



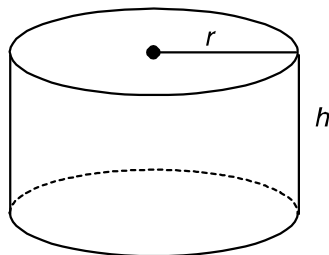
Triangle:
Area = $\frac{\text{base} \times \text{height}}{2}$



Trapezoid:
Area = $\frac{(A + B)H}{2}$



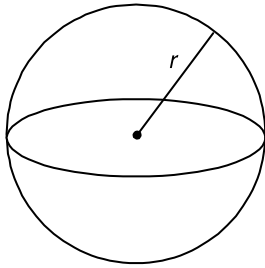
Circle:
Area = πr^2



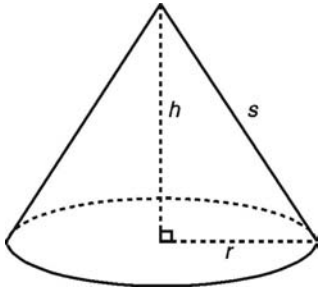
Cylinder (can):

- Area of top and bottom = $2(\pi r^2)$
- Area of sides = $2\pi r h$ **or**
height of can x circumference

Note: Only the sides of a regular tin can are considered ADS. There are exceptions for cans with plastic lids or cans that are labelled on the top and/or bottom of can.

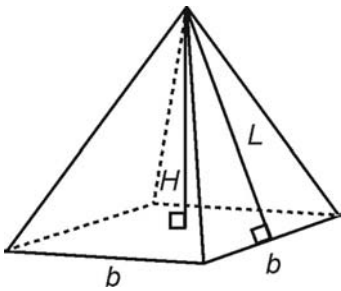


Sphere:
Area = $4 \pi r^2$



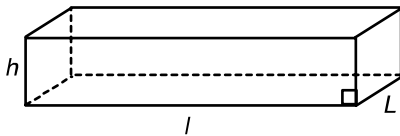
Cone:
Total Area = Area of cone + Area of base

- Area of cone = $\pi r s$
- Area of base = πr^2

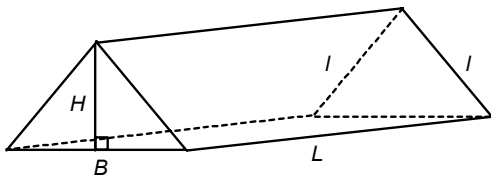


Pyramid with a square base (4 sides):
Total Area = Area of 4 triangles + Area of base

- Area of 4 triangles (sides) = $\frac{bl}{2} \times 4$
- Area of base = b^2

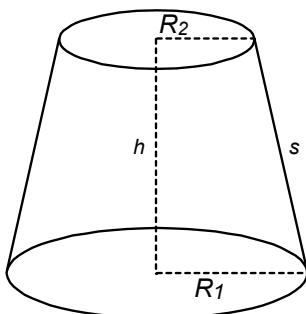


Box:
Total Area = (front and back) + (top and bottom) + (2 sides)
= $2(Ll + Lh + hl)$



Prism
Total Area = ends (2 triangles) + sides (2 rectangles) + base

- Area of ends (2 triangles) = $\frac{bh}{2} \times 2$
- Area of sides (2 rectangles) = $Ll \times 2$
- Area of base (1 rectangle) = Lb



Sides of Conical Frustum (e.g. sides of plastic yogurt tub)

Area of sides = $\pi [R1+R2] S$
 R1 = large radius
 R2 = small radius
 S=slant

3. Guidance on Measuring ADS

Areas Destroyed Upon Opening – e.g., tear strips, tamper seals

Areas of packaging that are destroyed upon opening (e.g., tear strips, tamper seals) are not considered ADS, unless the product is a single-serving package (i.e., the entire contents can be reasonably expected to be eaten by one person during a single eating occasion.)



Areas destroyed upon opening are not considered ADS.

Bag Closures — zip lock, cut line, heat seals

The ADS does not include zip locks, cut lines, or heat seals and the area past these closures (area often cut off when opening the package.)



Curves

Acute curves on rigid packaging are not considered ADS. However, gently sloping curves that may support a label or printed information (if printing appears directly on the package), are considered ADS.



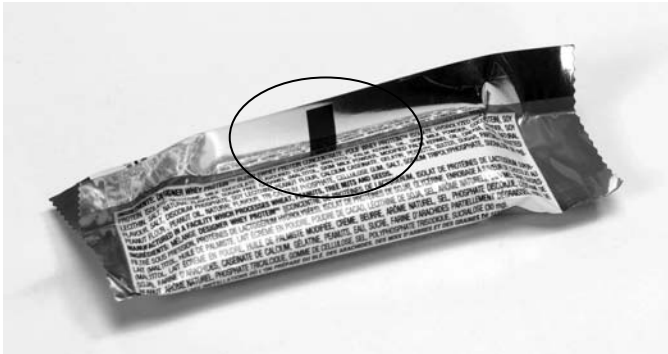
The acute curves on this package are not considered ADS.



The gentle curves on this package are included in the ADS.

“Eye Spot”

Certain packaging processes use an electronic eye to cut packaging material to the correct length. An “eye spot”, usually a dark oblong spot, is printed onto the continuous film of labelling material to trigger the cutting process. On the final package the eye spot is usually present on the seams. The area within the width of the eye spot, the whole length of the package, is not considered ADS.



Gable Ends

Gabled ends of packaging, such as those found on milk cartons and on cookie bags, are not considered ADS unless label information (mandatory or non-mandatory) appears in these areas. However, public service information (e.g., Kids Help Phone), recycle information, opening instructions, or coding would not cause this area to be considered ADS.



Gables are generally not considered ADS. See above for exceptions.

Gathered Ends of Packaging Material

When packaging material is gathered, making any written material impossible to read, this area is not considered ADS. Examples include the end of a bread bag, gathered ends of a tube of cookie dough or gathered ends of a prepackaged tube of ground beef.

However, if this area is covered by a flat sticker, then the whole area is considered ADS. Note that ADS includes the **whole area**, even if the sticker is small. Examples include the end of a role of biscuits or cookies and the back of a round of cheese packaged in a paper overwrap.

Note: The NFT should not be placed in gathered areas where printing is not legible at time of sale.



Gathered packaging material is not considered ADS.



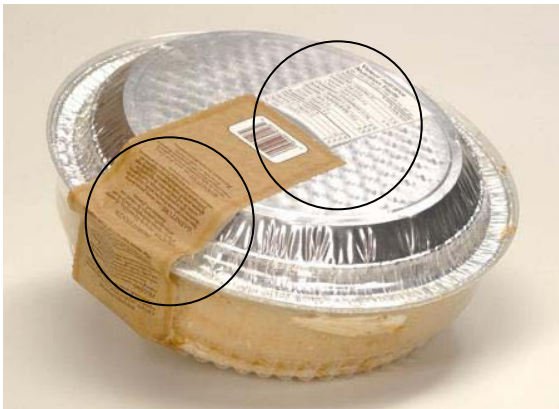
The presence of a sticker over the gathered packaging renders the whole area ADS.

Labelling Information on Non-ADS Surfaces

For some packaging types, certain surfaces of the package are not considered ADS. This may include areas of the package where a label cannot be physically applied or where information cannot be legibly set out or viewed or the bottom of a package if the product would be damaged or leak if turned upside down to view the NFT. However, if labelling information exists on these surfaces (other than the UPC code or coding information, public service announcements (e.g., Kids Phone), recycle instructions, or opening instructions), then these areas become ADS. For example, the top and bottom of metal cans are not considered ADS. However, if a sticker is applied to the top of a metal can, then the top of the can is considered ADS.



The top of the can is considered ADS because this area has been labelled.



Since the NFT and other labeling information are placed on the bottom of this baked product, the entire bottom of the product becomes ADS.

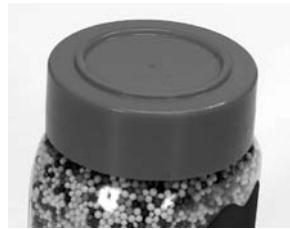
Lids

Lids on jars and tubs are generally considered ADS. However, raised areas and ridges that interfere with labelling are excluded from ADS. Sides less than 10 mm wide, sides with spirals or grooves, and very small lids are also excluded.

ADS includes the entire lid (top and sides).

ADS does **not** include:

- raised ridges *unless* there is labelling in the ridged areas
- sides <10 mm if no print information is in this area



Note: In some cases, very small caps of bottles are considered very small areas of continuous surface and, consequently, not ADS.

ADS does **not** include the sides of lids with spirals or grooves.



Paper Labels on the Inside of Clear Packages

When paper labels are on the inside of a clear packaging material, then the ADS of the panels that are occupied by the paper label includes the whole panel. There is no consideration for *minor* ridges and uneven surfacing of these panels. Other panels that do not have inner paper labels are calculated as though they did have an inner paper label.



In the case of this egg carton, the entire top and sides of the lid are considered ADS. However, since it would be almost impossible to place an inner paper label in the bottom cups, the bottom half of the egg carton is not considered ADS.

Ridges in Packaging Material

In certain cases, ridges in the packaging may make it impossible to affix a label or to print on the ridged sections. In these cases, the ridges are not considered ADS.

However, in other cases, closely repeated ridging will support a paper label and in some processes, the printing takes place before the ridges are formed. In these cases, these areas are considered ADS.



Ridged area is considered ADS, as it is possible to print on this area.



The bottom of this can is not considered ADS, as the multiple ridges, key, and raised circle, make it impossible to label.

UPC Symbol

The UPC (Universal Product Code or bar code) is not considered ADS and must not be included in the calculations for ADS [B.01.001]. However, if the UPC is present on the label more than once, the area occupied by the additional UPCs *would* be included in the ADS calculation.

Since the UPC code is a machine-readable bar code, the definition between lines must be significant enough for the machine to register. As a result, the size of the UPC code may vary depending on the precision of the printing process. Some printing processes and packaging materials cause ink to spread. Consequently, on some packaging the UPC code may be 200 % larger, or more, than the standard size.

When the UPC is enclosed in a box, the entire box is excluded from ADS. When the UPC is not enclosed in a box, only the area covered by the actual UPC is deducted from the ADS.



The entire box enclosing the UPC is excluded from ADS.



When there is no box surrounding the UPC, only the area covered by the UPC is excluded from ADS. The area of the UPC includes the outer characters.

Very Small Areas of “Continuous Surface”

Very small “continuous surfaces” where it is impossible and impractical to apply label information may be exempted from the calculation of ADS, e.g., folded triangles on package corners, very small caps or lids.



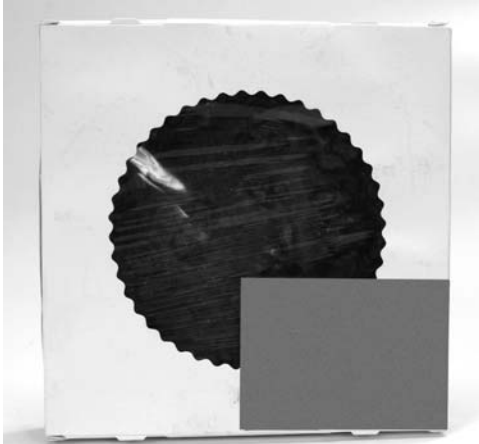
On this milk carton, both the cap and the area for the “Best Before” date are considered very small continuous surfaces and therefore, not included in the ADS calculation.



The small folded corners on these containers are “very small areas of continuous space” and are not considered ADS.

Windows and Transparent Packaging

Flexible or rigid transparent packaging materials, such as those found on bacon packages or covering widows in pie and candy boxes, are considered ADS. However, if the window is open with no inner covering, then the empty window is not considered ADS.



Covered window – considered ADS



Open Window – not included in ADS



Table E2: Summary – Guidance on Measuring ADS

Package Area	Include in ADS	Exclude from ADS
Areas Destroyed upon Opening - e.g., tamper seals, tear strips		<ul style="list-style-type: none"> area destroyed
Bag Closures - Zip Lock, Cut Line, Heat Seal		<ul style="list-style-type: none"> bag closure area past bag closure (area usually cut off when opening)
Curves	<ul style="list-style-type: none"> gentle curves that may support a label 	<ul style="list-style-type: none"> sharp acute curves
Eye Spot		<ul style="list-style-type: none"> eye spot and area whole length of package, if not already labelled
Gable Ends		<ul style="list-style-type: none"> whole area unless already printed
Gathered ends of bags		<ul style="list-style-type: none"> These areas are excluded from ADS as the information is not legible. The NFT should not be in this area.
Gathered Ends Covered by a Sticker - e.g., roll of cookies	<ul style="list-style-type: none"> The total panel where the sticker appears, even if the sticker covers only a small portion of the gathered material. 	
Label info. on non ADS areas (e.g. top of tin can)	<ul style="list-style-type: none"> whole area labelled 	
Lids - jars, tubs	<ul style="list-style-type: none"> top sides 	<ul style="list-style-type: none"> very small lids with no label information sides with spirals or groves that inhibit legibility. sides <10 mm wide. top – raised ridges – unless already printed
Ridges	<ul style="list-style-type: none"> ridges that don't interfere with labelling tightly repetitive ridging that may support a label 	<ul style="list-style-type: none"> ridges that will not support a label or interfere with legibility when label is printed directly on package
UPC code		<ul style="list-style-type: none"> entire box containing UPC code in the case of non-boxed UPC, only area covered by the UPC
Very small areas of continuous surface		<ul style="list-style-type: none"> whole area if not practical to be labelled, e.g. small caps, folded corners
Windows	<ul style="list-style-type: none"> plastic covered window 	<ul style="list-style-type: none"> open window

4. Calculation Methods for Different Packaging Types

Bacon Packages

ADS = Front + Back

ADS does not include:

- an area the width of one bacon slice the length of the package
- glued seams
- UPC



Front



Back

On this package of bacon, a transparent area the width of one bacon slice is provided on the back of the package, allowing the consumer to evaluate the lean/fat composition of the bacon. This area is not included in ADS.



Front



Back

In this package, the bacon is placed in such a way that the consumer may evaluate the fat/lean composition of the bacon from the front window of the package. Nevertheless, an exemption from ADS is still granted for an area equivalent to the width of one bacon slice the whole length of the package.

You asked?

Q: Why is the area of 1 bacon slice excluded from ADS?

A: The requirement to provide a transparent area the width of one bacon slice is a CFIA requirement set out in Meat Inspection Manual. Consequently, this area is not available for labelling.