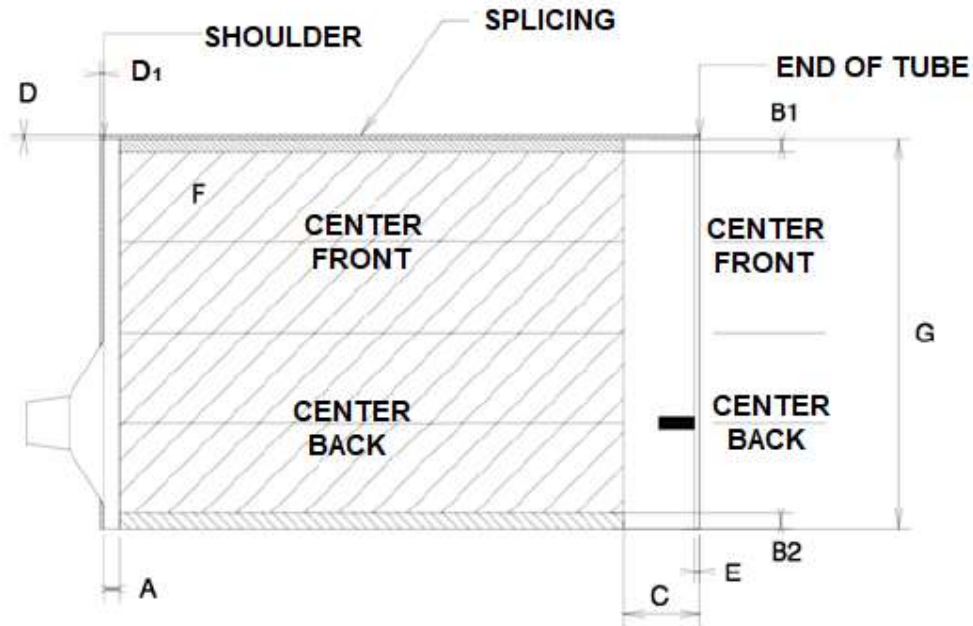


# **GUIDE FOR PRINTING ON** **ALUMINUM TUBES**

**December 19<sup>th</sup>, 2016**

## 1. DEFINING DECORATED AREAS AND BLANK SPACES



A – NO DECORATION OR TEXT ON THIS AREA

B1 – NO DECORATION OR TEXT ON THIS SPLICING AREA

B2 – NO DECORATION OR TEXT ON THIS SPLICING AREA

C – NO DECORATION OR TEXT ON THIS AREA; IT WOULD DISSAPEAR WHEN TUBE IS CLOSED (SEE TABLE 1 OF IRAM STANDARD No. 6765)

D – ADDITIONAL 2 mm SPACE FOR SPLICING

D1 – ADDITIONAL 1 mm SPACE AT SHOULDER FOR FULL SPACE GRADING

E – UNENAMELLED TUBE END AND FILLER NECK, 1 +/- 0.5 mm VALUE

F – DESIGN SPACE

G – DESIGN LENGTH

## 2. MINIMUM VALUES FOR AREAS WITHOUT TEXT

Tube Diameter	A	B1	B2	E
13.5 – 19 mm	2.0 mm	2.0 mm	2.0 mm	1.0 +/- 0.5 mm
22 – 32 mm	3.0 mm	3.5 mm	3.0 mm	1.0 +/- 0.5 mm
35 – 38 mm	3.0 mm	4.0 mm	3.0 mm	1.0 +/- 0.5 mm

## 3. IMPORTANT CRITERIA FOR TUBE DESIGN

### 3.1. Colors

When printing tubes, 4 PANTONE COLORS are used.

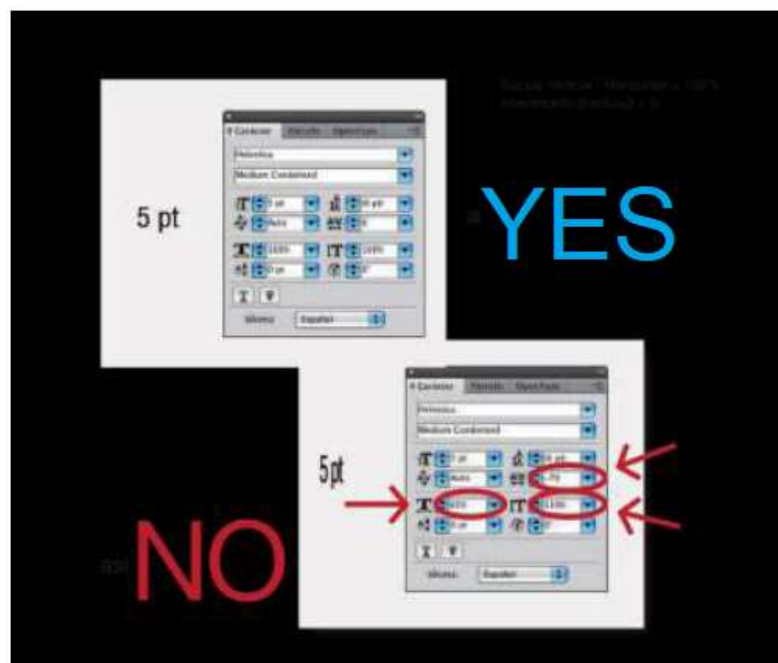
Colors are printed separately, one after the other, on a printing blanket, with no intermediate drying and are then transferred to the tubes.

### 3.2. Not-Printed Areas

It is possible to print some elements – such as logos, etc.- in areas that remain blank and that will not be seen afterwards, for example, splicing area

### 3.3. Types of Text

NO less than 5 points, with the following characteristics:

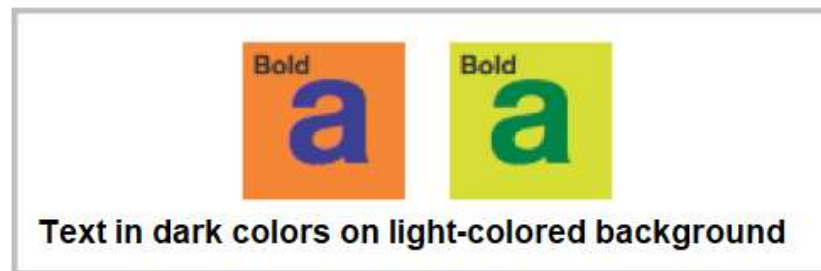


3.4. For **POSITIVE TEXTS**, use LIGHT font (see example).



Positive text

3.5. For **POSITIVE TEXTS**, use BOLD font (see example).



Positive text

3.6. For **NEGATIVE TEXTS**, use BLACK font, and cut-out, white or light-colored text on dark background (see example).



Negative text

### 3.7. Line Thickness

Minimum thickness must be:

- For positive lines: 0.15 mm (0.3 Pts)
- For negative lines: 0.20 mm (0.5 Pts)



positive lines: 0.15 mm, 0.3 Pts

negative lines (cut out from background): 0.20 mm, 0.5 Pts

### 3.8. Gradation of Tone Screens

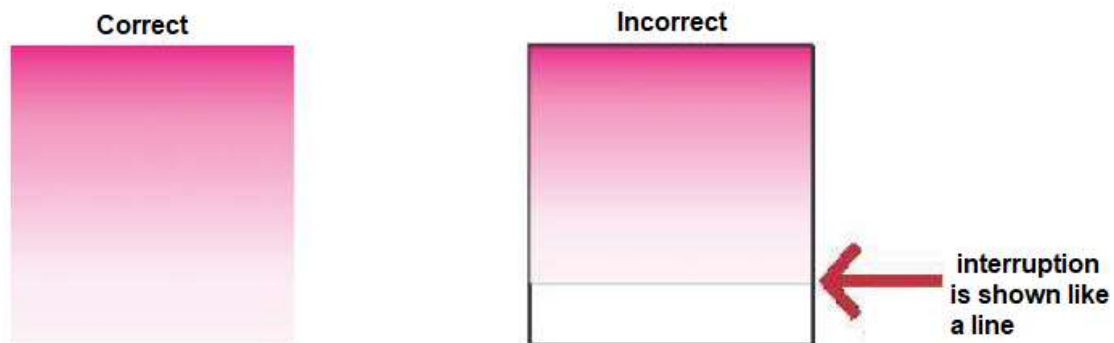
It should NOT be lower than 5% (it will not print below that percentage) (see example).



Gradation of tone screens

### 3.9. Gradation of Tone Screens

It should not be interrupted in the middle of the container, neither vertically nor horizontally, or a cut will show and design will lose softness (see example).



### 3.10. Gradation in Axial Direction (Iris Printing) (dots per inch)

- It will be of 100 lines.
- Take into account an approximate additional gain of 10-15% since it cannot be avoided in the printing process.

**Neither TEXT nor FULL SPACE GRADING** will be overprinted.

**WHITE INK** base-coatings are **NOT** applied below other colors to strengthen color values.



### 3.11. Color Tolerance

Due to the process we use for decorating the tube, it cannot be assured that we will get the exact same colors every time. Thus, please check the accepted tolerances for your product in the color chart we provide.

### 3.12. Trademarks or Pharmaceutical Codes

It is important that trademarks and/or pharmaceutical codes are printed in dark colors in order to assure high contrast and good visibility.

## 4. FILES ACCEPTED

- Programs: Illustrator for MAC, Corel PC and PDF (both).
- All files should be vectorized.
- Images: TIFF 300 dpi. (Send this file embedded in the document and another one attached separately so we can adapt it.)
- Please ask our Pre-Press department for **Printing Templates and Printable Areas Templates**.
- Art should adjust to said templates.
- Please specify **PANTONE INKS** to be used.
- Please specify the **Diameter** of the container to be used, as well as **total body height**.
- To keep better track of files, please send a color **JPG** of each file.
- If you want to e-mail everything, please send it to this address:

**calidad@tubap.com**