

CONTAINER OPENING SYSTEM ADAPTED TO PAPER AND BOARD



Background (REF: 1,2)



Figure-1. PFR container collection in Madrid. Source: ASPAPEL

Paper is a material consisting of a thin sheet made of cellulose pulp. Cardboard is comprised of several layers of paper. Therefore, cardboard is thicker, harder and stronger than paper. Box styles in Europe are typically defined by a 4-digit code specified by the European Federation of Corrugated Board Manufacturers (FEFCO).

Therefore, paper and board collection containers should be also adapted for the collection of folded packaging board.

It has been found that open top containers contain more erroneous wastes than those with a shape-adapted opening. Containers are usually designed according to EN 13071-1:2008-10, which set minimum design requirements. In the specific case of paper & board, it is recommended to include flat openings (long and thin), in order to allow the material entrance while at the same time hindering theft of paper.

ACTION

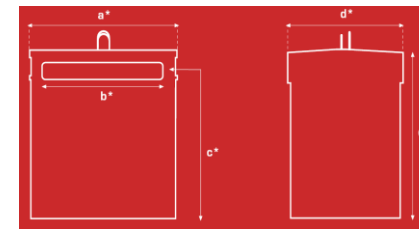
Use containers with openings adapted to the size and shape of the material deposited (i.e. graphic paper, paper and board packaging)

— Example of best practice implemented —

Metallic container for paper & board collection, recommended by ASPAPEL and ECOEMBES (Spain) (REF: 3, 4)

Metallic container for paper & board collection, recommended by ECOEMBES (Spain).

This type of container is specially designed for PFR collection of recyclables with the support of the ASPAPEL and Spanish Packaging Producer Responsibility Organisation ECOEMBES.



| | |
|-------|-------------|
| a^* | 1600 mm |
| b^* | 1002x170 mm |
| c^* | 1300 mm |
| d^* | 1200 mm |
| e^* | 1630 mm |

Figure-2. PFR container design (REF. 3)

In the program “Tu papel 21”, paper and board coming from small commerces, establishes a communication campaign identifying those collection points where the PFR can be deposited.



Figure-3. Example of cardboard collection point for small commerces. Source: ASPAPEL

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Keep in mind that...




- ⚠ Dimensions of the opening should be decided taking into account the material to be introduced inside.
- ⚠ Container design should be adapted to the collection method (truck used) and vice versa.
- ⚠ The opening size and shape can be combined with an antitheft system.
- ⚠ If graphic paper is collected selectively use smaller openings than for paper and board collection.

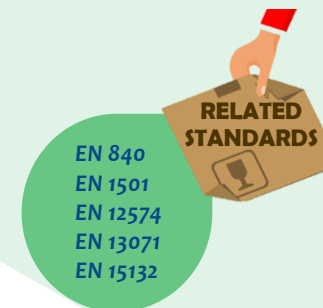
Related GP: "Selective Collection System for Graphic Paper"

How to start?

- ✓ Defining properly the shape and size of waste to be introduced (e.g. magazines/newspapers, small boxes, flat pieces of cardboard, folding boxes, big rigid boxes).
- ✓ Analyse other external factors that can affect the decision (e.g. kind of users, antitheft measures, collecting truck to be used)
- ✓ Check and analyse available market solutions.
- ✓ Select the best-fitting alternative.
- ✓ Monitor performance of the system (e.g. check regularly material introduced inside, observe if material is placed outside the container).

Potential benefits

| |  |  |  |
|---|---|---|---|
| Easier use of the containers for the citizens | ● | ● | ● |
| More comfort and convenience for the citizens | | | ● |
| Cleaner city | | ● | ● |
| Prevention of other material in the paper and board container | | ● | ● |
| Increase of paper and board collection rates | ● | ● | ● |



References:

1. ECOEMBES (2008): Recogida selectiva de papel
2. EN 13071-1:2008-10
3. THESAL: Contenedores de superficie
4. ASPAPEL (2013): Asociación Española de Fabricantes de Pasta, Papel y Cartón