

**TRACEABILITY APPLIED TO  
THE PAPER AND BOARD FOOD PACKAGING CHAIN  
(Practical Guidelines)**

## **INTRODUCTION**

This document gives guidelines for product traceability within the paper and board food packaging chain<sup>1</sup>.

### **I. SCOPE**

These guidelines cover paper and board and their converted products from the paper mill downstream to the packer-filler stage. In accordance with EU Regulation 1935/2004, manufacturers of materials, articles, substances and products covered by this Regulation are required to implement traceability and product recall measures.

Thus, these guidelines are principally to demonstrate traceability and recall down the paper and board supply chain. Papermaking raw materials and certain additives used in subsequent processes are not materials and articles within the meaning of this Regulation. However, it may be necessary for the authorities or the manufacturer concerned to establish links to such materials to determine commercial or legal liability and details are included to facilitate how this might work in practice.

These guidelines do not cover tissue products (see part 7).

## **II. GENERAL INFORMATION**

### **II.1. Food Uses of Paper and Board and its Converted Products**

Although sold as “intended to come into contact with food” the physical properties of paper and board, as it leaves the paper mill, prevent any application as a food packaging material until it has been converted in some way. Examples of the food applications for converted products include bags for confectionery, pizza boxes, bread wrap, chocolate interleaving, frozen food containers, vegetable boxes, sugar bags, beverage cartons and food service boards.

### **II.2 Overview of the Flow Line**

The processing chain for paper and board food packaging is extremely complex. There are literally thousands of different ways in which paper may be processed before use. Examples of these processes include: slitting reels to smaller reels, cutting to sheets, calendaring, laminating to metal and plastic, corrugating operations, die cutting, printing, varnishing, gluing, box and carton making, packaging and labelling. As well as the processes themselves, there is a considerable overlap of the operations performed in different types of converting plants. For instance, both paper mills and separate companies will perform coating operations and some corrugating plants will produce only unprinted flat blanks whilst others will produce complete boxes and trays.

It is, thus, impossible to produce guidelines covering all aspects of the production and converting process. These guidelines explain best practice and the main principles are shown in Diagram 1. These principles will apply to any specific process, irrespective of the particular material flow and the type of plant in which it is performed.

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<sup>1</sup> Information provided, on behalf of their respective members, by the Confederation of European Paper Industries (CEPI) and The International Confederation of Paper and Board Converters in Europe (CITPA).

### **II.3. Examples of Packaging Processes and Products**

To illustrate the details of traceability, four typical packaging products have been selected (cartons for liquid food, corrugated boxes, paper for hot filtration and folding box board cartons) and the operation of traceability during their manufacture is shown in Diagrams 3 to 6. In addition, equivalent information for the papermaking process (which precedes all of the above operations) is shown in Diagram 2. A Glossary of Terms is given in Table 1.

### **II.4. Special Consideration of Bulk Raw Materials**

A feature of many operations, in the paper and board packaging chain, is the use of bulk additives such as sizing agents during paper and board manufacture, starch during corrugated board production and clay for coating operations. The principles of traceability for these materials will differ from those applicable during batch operations. In both cases, the manufacturer and batch number will be known from identifications and accompanying documentation. Batches of bulk materials will be used, on a continuous basis, from silos or other storage devices and the link from these to the treated or finished product may be less precise. However, because all batch process additions are recorded in a timed log, it is possible to relate the times at which the batch of additive concerned was introduced to the process and was thus at a significant concentration. From the timed log of the process concerned, these data can be related to the identification of the paper and board products. The achievement of higher precision is not technologically feasible in a continuous, industrial process.

## **III. Recall**

One of the main purposes of the traceability requirements within Regulation 1935/2004 is to enable recall of defective product. Throughout all the stages of all the processes described in these guidelines, it can be seen that extensive documentation is in place both within operations and between organisations in the packaging chain. In particular, there is a clause in the Regulation which states:

Business operators shall have in place systems and procedures to allow identification of the businesses from which and to which materials or articles and, where appropriate, substances or products covered by this Regulation and its implementing measures used in their manufacture are supplied.

This requirement is fulfilled from the paper mill downstream to the final packaging product either in the form of identification on the product itself or contained in the accompanying documentation.

It can be seen, in the diagrams, that large reels produced in a paper mill are subdivided many times to produce the final paper and board packaging products. Because of extensive record keeping within all the processes of the paper packaging chain, both upstream and downstream product traceability and the identification of the source of any problem will be assured. The batch numbers and suppliers of all starting materials are recorded and internal records relate these to the packaging product itself. Thus, using downstream traceability, the identification of an affected product or starting material sent to other locations and customers is possible. This will define rapidly the full extent of any affected material in the market place or still in production thus enabling full recall of any defective product

.Table 1 Glossary of Terms	
blank	a shaped, flat piece of paper or board for use in a subsequent process e.g. folding/gluing into a frozen food box or milk carton
calendaring	passing a web of paper between metal or fibre rollers in order to produce a more smooth or glossy appearance
coating	a process of applying to the surface of paper or board one or more layers of a liquid suspension of pigment or other material in a fluid form. The purpose is to improve printability or other properties such as grease or water resistance
converting	any operation, applied after the normal paper or board manufacturing process, which changes the physical shape or appearance of paper and board e.g. slitting, cutting into sheets, bag and box manufacture, printing, etc.
creasing	the process of making an indentation in board materials in order to produce a line along which it may be folded. This enables the folding of a blank to produce a shaped package
die cutting	cutting or stamping a sheet or web of paper or board with a shaped knife to produce a special shape or blank
extruder	equipment used to produce a layer of plastic prior to laminating
laminating	the fixing of a ready-formed layer of plastic, paper, metal, etc. to paper or board normally using an adhesive
palletising	placing paper and board packaging products on to a pallet and then wrapping and labelling the whole unit
sizing agent	a liquid material applied to paper or board and used to improve its resistance to the penetration and spread of aqueous liquids, for example printing inks
slitting	the passing of a moving web of paper or board from a reel through knives resulting in the production of a number of reels of smaller width and/or diameter
web	a continuous length of paper or board travelling along a paper machine or through converting equipment













