

# European List of Standard Grades for Recovered Paper and Board

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## European List of Standard Grades for Recovered Paper and Board

In an effort to standardise the use of recovered paper grades throughout Europe the Bureau of International Recycling (BIR) and Confederation of European Paper Industries (CEPI) have produced a European List of Standard Grades of Recovered Paper and Board.

The document details five groups of recovered paper - ordinary, medium, high, kraft and special grades - each of which consists of a number of defined grades and sub grades with details of what they should and should not contain.

This will be of particular interest to individuals and organisations involved in the collection and reprocessing of recovered paper, along with paper mills interested in purchasing recovered paper as a raw material.

The existence of widely accepted standards should lead to an improvement in recovered paper collection and sorting systems and help ensure that mill requirements for specific grades are met.

Gerry West, president of the BIR Paper Division said: "We hope that the List will have an impact on the definition of recovered paper in Europe, and will play a key role in helping authorities to make the distinction between what is waste and non-waste. The List will assist in ensuring that from now on, recovered paper is considered as a raw material which is a well-defined and valuable commodity and not a waste material".

The full list of standards is detailed below.

### EUROPEAN LIST OF STANDARD GRADES OF RECOVERED PAPER and BOARD

*This document has been developed jointly by the Confederation of European Paper Industries (CEPI) and the Bureau of International Recycling (BIR) as a revision of the CEPI list dated January 1995.*

#### **Preface**

This list of European standard grades of recovered paper and board gives a general description of the standard grades by defining what they do and do not contain.

The list is for use by industry professionals, organisations and individuals with an interest in the recovered paper sector to assist in the buying and selling of this raw material intended for recycling by the paper and board industry.

It is not the purpose to specify all the qualities of recovered paper and board that exist in the different markets, but rather to define those qualities most commonly traded in Europe. The description of the grades is brief, and for this reason it is recognised that specific deals between buyer and supplier for grades with special specifications will still be necessary to meet individual requirements and will not be excluded by any implied regulations associated with the publication of this list.

Paper and board mills may ask for a declaration from the supplier about the origin of the material, in relation to national regulations or standard requirements.

Recovered paper from refuse sorting stations is not suitable for use in the paper industry. Recovered paper and board originating from multi material collection systems, containing only material of a valuable, recyclable nature, has to be specifically marked. It is not permissible to mix it unmarked with other recovered paper and board.

The list contains a group of recovered paper grades (**Group 5 "Special Grades"**) that, in most cases, can only be recycled using specific processes, or can cause some particular constraints to recycling. Their inclusion in the list is justified by the existence of a significant European market. Actual recycling of the specific qualities can only be done by a limited number of mills located in a few countries only.

## **Definitions**

### **Unusable materials**

Materials which are unusable in the production of paper and board consist of "non-paper components", and "paper and board detrimental to production". Recovered paper and board should in principle be supplied free of unusable materials, but where for specific grades a certain proportion of unusable materials is agreed between purchaser and supplier, it shall refer solely to the element described as "paper and board detrimental to production".

### **Non-paper components**

These consist of any foreign matter in the recovered paper and board which, during processing, may cause damage to machines or interruptions to production or may reduce the value of the finished product, such as:

- metal
- plastic
- glass
- textiles
- wood
- sand and building materials
- synthetic materials
- "synthetic papers"

### **Paper and board detrimental to production**

These are grades of paper and board which have been recovered or treated in such a way that they are, for a basic or standard level of equipment, unsuitable as raw material for the manufacture of paper and board, or are actually damaging, or whose presence makes the whole consignment of paper unusable.

A growing number of mills have, however, adapted treatment plants to handle such grades and the range of papers and boards capable of being recycled is increasing all the time as technology develops. The criteria for defining the percentage of "unusable materials" for these grades will be subject to individual mills' specifications.

## **Moisture content**

Recovered paper and board will, in principle, be supplied with moisture of not more than the naturally occurring level. Where the moisture content is higher than 10% (of air dried weight), the additional weight in excess of 10% may be claimed back – with the method of testing and sampling to be agreed between buyer and seller.

## **To the numbering system**

Recovered paper grades have been numbered in this list according to a numerical code system as follows:

**x.yy.ww**

where:

x: group

y: grade

w: subgrade

## **Group 1 - Ordinary Grades**

### **1.01 - Mixed paper and board, unsorted, but unusable materials removed**

A mixture of various grades of paper and board, without restriction on short fibre content.

### **1.02 - Mixed papers and board (sorted)**

A mixture of various qualities of paper and board, containing a maximum of 40% of newspapers and magazines.

### **1.03 - Grey board**

Printed and unprinted white lined and unlined grey board or mixed board, free from corrugated material.

### **1.04 - Supermarket corrugated paper and board.**

Used paper and board packaging, containing a minimum of 70% of corrugated board, the rest being solid board and wrapping papers.

### **1.05 - Old corrugated containers**

Used boxes and sheets of corrugated board of various qualities.

### **1.06 - Unsold magazines**

Unsold magazines, with or without glue.

#### **1.06.01 - Unsold magazines without glue**

Unsold magazines without glue.

### **1.07 - Telephone Books**

New and used telephone books, with unlimited content of pages coloured in the mass, with and without glue. Shavings allowed.

### **1.08 - Mixed newspapers and magazines I**

A mixture of newspapers and magazines, containing a minimum of 50% of newspapers, with or without glue.

### **1.09 - Mixed newspapers and magazines II**

A mixture of newspapers and magazines, containing a minimum of 60% of newspapers, with or without glue.

### **1.10 - Mixed magazines and newspapers**

A mixture of newspapers and magazines, containing a minimum of 60% of magazines, with or without glue.

### **1.11- Sorted graphic paper for deinking**

Sorted graphic paper from households, newspapers and magazines, each at a minimum of 40%. The percentage of non-deinkable paper and board should be reduced over time to a maximum level of 1.5%. The actual percentage is to be negotiated between buyer and seller.

## **Group 2 - Medium Grades**

### **2.01 - Newspapers**

Newspapers, containing a maximum of 5% of newspapers or advertisements coloured in the mass.

### **2.02 - Unsold newspapers**

Unsold daily newspapers, free from additional inserts or illustrated material coloured in the mass.

#### **2.02.01- Unsold newspapers, no flexographic printing allowed**

Unsold daily newspapers, free from additional inserts or illustrated material coloured in the mass, strings allowed. No flexographic printed material allowed.

### **2.03 - Lightly printed white shavings**

Lightly printed white shavings, mainly mechanical pulp based paper.

#### **2.03.01- Lightly printed white shavings without glue**

Lightly printed white shavings, mainly mechanical pulp based paper, without glue.

### **2.04 - Heavily printed white shavings**

Heavily printed white shavings, mainly mechanical pulp based paper.

#### **2.04.01- Heavily printed white shavings without glue**

Heavily printed white shavings, mainly mechanical pulp based paper, without glue.

### **2.05 - Sorted office paper**

Sorted office paper.

### **2.06 - Coloured letters**

Correspondence, in mixed papers coloured in the mass, with or without print, of printing or writing paper. Free from carbon paper and hard covers.

### **2.07 - White woodfree books**

Books, including misprints of books, without hard covers, mainly of woodfree white paper, black printed only. Containing a maximum of 10% of coated paper.

### **2.08 - Coloured woodfree magazines**

Coated or uncoated magazines, white or coloured in the mass, free from non-flexible covers, bindings, non-dispersible inks and adhesives, poster papers, labels or label trim. May include heavily printed circulars and coloured in the mass shavings. Containing a maximum of 10% mechanical pulp based papers.

### **2.09 - Carbonless copy paper**

Carbonless copy paper.

### **2.10 - Bleached woodfree PE-coated board**

Bleached woodfree PE-coated board from board manufacturers and converters.

### **2.11 - Other PE-coated board**

Other PE-coated board. May contain unbleached board and paper from board manufacturers and converters.

### **2.12 - Mechanical pulp based computer print-out**

Continuous computer print-out, mechanical pulp based, sorted by colours, may include recycled fibres.

## **Group 3 - High Grades**

### **3.01 - Mixed lightly coloured printers shavings**

Mixed shavings of printing and writing papers, lightly coloured in the mass, containing a minimum of 50% of woodfree paper.

### **3.02 - Mixed lightly coloured woodfree printer shavings**

Mixed shavings of printing and writing papers lightly coloured in the mass, containing a minimum of 90% of woodfree paper.

### **3.03 - Woodfree binders**

White woodfree lightly printed shavings with glue, free from paper coloured in the mass. May contain a maximum of 10% of mechanical pulp based paper.

### **3.04 - Tear white shavings**

White woodfree lightly printed shavings without glue, free from wet-strength paper and paper coloured in the mass.

### **3.05 - White woodfree letters**

Sorted white woodfree writing papers, originating from office records, free from cash books, carbon paper and non-water soluble adhesives.

### **3.06 - White business forms**

White woodfree printed business forms.

### **3.07 - White woodfree computer print-out**

White woodfree computer print-out, free from carbonless paper and glue.

### **3.08 - Printed bleached sulphate board**

Heavily printed sheets of bleached sulphate board, without glue, polycoated or waxed materials.

### **3.09 - Lightly printed bleached sulphate board**

Lightly printed sheets of bleached sulphate board, without glue, polycoated or waxed materials.

### **3.10 - Multi printing**

Woodfree, coated, lightly printed, free from wetstrength paper or paper coloured in the mass.

### **3.11 - White heavily printed multiply board**

New cuttings of heavily printed white multi-ply board, containing woodfree, mechanical or thermo-mechanical pulp plies, but without grey plies.

### **3.12 - White lightly printed multiply board**

New cuttings of lightly printed white multi-ply board, containing woodfree, mechanical or thermo-mechanical pulp plies, but without grey plies.

### **3.13 - White unprinted multiply board**

New cuttings of unprinted white multi-ply board, containing woodfree, mechanical or thermo-mechanical pulp plies, but without grey plies.

### **3.14 - White newsprint**

Shavings and sheets of white unprinted newsprint, free from magazine paper.

### **3.15 - White mechanical pulp based coated and uncoated paper**

Shavings and sheets of white unprinted coated and uncoated mechanical pulp based paper.

#### **3.15.01 - White mechanical pulp based paper containing coated paper**

Shavings and sheets of white unprinted mechanical pulp based coated paper.

### **3.16 - White woodfree coated paper, without glue**

Shavings and sheets of white unprinted woodfree coated paper, without glue.

### **3.17 - White shavings**

Shavings and sheets of white unprinted paper, free from newsprint and magazine paper containing a minimum of 60% of woodfree paper; may contain a maximum of 10% of coated paper. Without glue.

### **3.18 - White woodfree shavings**

Shavings and sheets of white unprinted woodfree paper; may contain a maximum of 5% of coated paper. Without glue.

#### **3.18.01 - White woodfree uncoated shavings**

Shavings and sheets of white unprinted woodfree paper, free from coated paper. Without glue.

### **3.19 - Unprinted bleached sulphate board**

Unprinted sheets of bleached sulphate board, without glue, polycoated or waxed materials.

## **Group 4 - Kraft Grades**

#### **4.01 - New shavings of corrugated board**

Shavings of corrugated board, with liners of kraft or testliner

##### **4.01.01- Unused corrugated kraft**

Unused boxes, sheets and shavings of corrugated board, with kraft liners only, the fluting made from chemical or thermo-chemical pulp.

##### **4.01.02- Unused corrugating material**

Unused boxes, sheets and shavings of corrugated board, with liners of kraft or testliner.

#### **4.02 - Used corrugated kraft I**

Used boxes of corrugated board, with kraft liners only, the fluting made from chemical or thermo-chemical pulp.

#### **4.03 - Used corrugated kraft II**

Used boxes of corrugated board, with liners of kraft or testliners but having at least one liner made of kraft

#### **4.04 - Used kraft sacks**

Clean used kraft sacks. Wet-strength and non wet-strength.

##### **4.04.01- Used kraft sacks with polycoated papers**

Clean used kraft sacks. Wet-strength and non wet-strength. May include polycoated papers.

#### **4.05 - Unused kraft sacks**

Unused kraft sacks. Wet-strength and non wet-strength.

##### **4.05.01- Unused kraft sacks with polycoated papers**

Unused kraft sacks. Wet-strength and non wet-strength, may include polycoated papers.

#### **4.06 - Used kraft**

Used kraft paper and board of a natural or white shade.

#### **4.07 - New kraft**

Shavings and other new kraft paper and board of a natural shade.

#### **4.08 - New carrier kraft**

New carrier kraft, may include wet-strength paper.

### **Group 5 - Special Grades**

#### **5.01 - Mixed recovered paper and board**

Unsorted paper and board, separated at source.

#### **5.02 - Mixed packaging**

A mixture of various qualities of used paper and board packaging, free from newspapers and magazines.

### **5.03 - Liquid board packaging**

Used liquid packaging board including used PE-coated liquid packaging board (with or without aluminium content), containing a minimum of 50% by weight of fibres, and the balance being aluminium or coatings.

### **5.04 - Wrapper kraft**

Poly-lined, sprayed, or laminated used kraft. Must not contain bitumen or wax coatings.

### **5.05 - Wet labels**

Used wet labels from wet-strength papers, containing a maximum of 1% glass content, and a maximum of 50% moisture, without other unusable materials.

### **5.06 - Unprinted white wet-strength woodfree papers**

Unprinted white wet-strength woodfree papers.

### **5.07 - Printed white wet-strength woodfree papers**

Printed white wet-strength woodfree papers.