



# La nuova norma EN 643 sulla classificazione dei maceri

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# Confronto tra indici

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# Premessa

It is intended to assist them in the buying and selling of these raw materials, which are intended for recycling by the Paper & Board Industry **without the need for additional sorting prior to use at a paper mill.**

The definition for **'prohibited materials'** and the limits for 'non-paper components' provide guidance and support for Customs & Excise Officers who are required to differentiate these raw materials from waste....

The revision of the EN 643 coincides with a fundamental change in waste legislation. The Waste Framework Directive (2008/98/EC) introduces a procedure for defining **End-of-Waste (EoW)** criteria...

# Premessa

Major criterion is the use of the product for paper fibre recycling. To take account of this criterion, the terminology has been amended by substituting the term "Recovered Paper & Board" by "**Paper & Board for Recycling**"

Finally, a limit of 1,5 % non-paper components is set for End-of-Waste material. ... much effort was given to the **definition of tolerance levels for non-paper components and unwanted materials** at this revision. The definition of tolerance levels also reduces the need for individual agreements between buyer and supplier. However, specific agreements between individual buyers and suppliers, defining non standard grades, may be used.

# Scopo

This document defines grades of Paper & Board for Recycling used as the **source of raw material, for recycling**, in the manufacture of paper and board products by the paper industry.

This document also specifies levels/limits of tolerance for the composition of Paper & Board for Recycling and unusable materials (prohibited materials, non-paper components and paper and board detrimental to production). It also defines concepts clarifying them for all the people involved in the management of Paper & Board for Recycling.

# Precedenti definizioni

## **Vecchia 2.1 unusable material**

material unusable in the production of paper and board. It consists of "non-paper components and paper and board detrimental to production"

## **Vecchia 2.2 non-paper components**

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.

# Precedenti definizioni

**Vecchia 2.3 paper and board detrimental to production** 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.

# Definizioni

## 2.1 Paper & Board for Recycling **NEW**

Term denoting natural fibre based paper and board suitable for recycling. It consists of:

- paper and board in any shape.
- products made predominately from paper and board, which may include other constituents that can not be removed by dry sorting, such as coatings and laminates, spiral bindings, etc.

## 2.2 Prohibited Materials **NEW**

Prohibited Materials are any materials which represent a **hazard for health, safety and the environment**, such as medical waste, contaminated products of personal hygiene , hazardous waste, organic waste including foodstuffs, bitumen, toxic powders and similar.

# Definizioni

## 2.3 Non-Paper Components

Non-Paper Components are any foreign matter in Paper & Board for Recycling, which is not a constituent part of the product and **can be separated by dry sorting**, such as:

- metal;
- plastic;
- glass;
- textiles;
- wood;
- sand and building materials;
- synthetic materials;

**Tolta la syntec paper (semplicemente perchè non è “paper”)**

# Definizioni

## 2.4 Paper & Board Detrimental to Production

Paper & Board Detrimental to Production are those papers and boards 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 new paper and board products, or are actually damaging, or whose presence makes the whole consignment of paper unusable.

**For grades intended for deinking, all paper containing brown, unbleached fibres are considered detrimental to production.**

Some mills have developed their technology to handle such grades, therefore the range of paper and board capable of being recycled is increasing.

# Definizioni

## **2.5 Paper& Board not according to grade definition **NEW****

These are paper and board or products thereof that are not included in the description of the specific grade of Paper & Board for Recycling

NOTE **This could lead to** regrading.

## **2.6 Paper products suitable for Deinking **NEW****

The suitability for deinking is a characteristic of a printed paper product. Details how to make this evaluation see “Assessment of Print Product Recyclability - **Deinkability Score**”.

# Definizioni

## 2.7 Unwanted Material ("outthrows")

This comprises material not suitable for the production of paper and board.

The Unwanted Material may comprise:

- non-paper components;
- paper and board not according to grade definition; **NEW**
- paper and board detrimental to production;
- paper not suitable for deinking (if applicable). **NEW**

Ciò che prima era “unusable material” ora è “unwanted material”.

# Requisiti generali

Paper and Board mills may ask for a declaration from the supplier about the origin of the material...

The use of the "European Recovered Paper Identification System" (2008) is recommended.

Paper and board for recycling 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 paper and board for recycling. **(Prima era nell'introduzione)**

Paper sorted from refuse collections is not suitable for use in the paper industry. **(Prima era nel campo di applicazione e il testo era: Recovered paper from refuse sorting stations .....)**

# Requisiti generali

## 5.2 Prohibited materials **NEW**

Prohibited materials, as defined on section 2.2 are **not permitted at all**.

## 5.3 Unwanted materials **NEW**

Paper and board for recycling **should in principle be supplied** free of unwanted materials. The list of grades, however, specifies levels of tolerance for non-paper components and the total unwanted material (outthrows).

The **total value of unwanted materials comprise the tolerance for non paper components** and the tolerance for **paper and board not according to grade definition paper and board detrimental for production**, and **paper not suitable for deinking** (if applicable).

# Requisiti generali

## 5.4 Moisture content in paper and board for recycling

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. **(Rimasta immutata)**

## 5.5 Form of delivery **NEW**

Shredding of paper and board for recycling should be avoided and thus be limited to reasons where confidentiality is required. If shredding can not be avoided, the pieces should be left as large as possible.

# Requisiti generali

## 5.6 Additional requirement for grades intended for deinking **NEW**

The following requirements apply only to paper and board intended for deinking, and do not apply if paper and board for recycling is used in other paper recycling processes.

### 5.6.1 Age of newspapers

If paper and board for recycling is intended to be used in a deinking process, the **average age of the newspapers shall not exceed six** months from the date of issue. This refers to the grades 1.09.00, 1.11.00, 2.01.00 and 2.02.01.

# Requisiti generali

## 5.6.2 Paper products suitable for deinking

Grades intended for deinking should consist of paper products suitable for deinking. Paper products not suitable for deinking belong to unwanted material. At the current state of knowledge, this refers to most **flexographic printing, inkjet, liquid toners and to some UV cured prints**

Grades intended for deinking are: 1.06.00, 1.06.01, 1.06.02, 1.07.00, 1.09.00, 1.11.00, 2.01.00, 2.02.01, 2.03.00, 2.03.01, 2.04.00, 2.04.01, 2.05.00, 2.05.01, 2.06.00, 2.06.01, 2.07.00, 2.07.01, 2.08.00, 2.12.00, 2.13.00, 3.01.00, 3.02.00, 3.03.00, 3.03.01, 3.04.00, 3.05.00, 3.06.00, 3.08.00, 3.09.00, 3.10.00, 3.10.01, 3.11.00, 3.11.01, 3.12.00, 5.05.00, 5.05.01, 5.09.00, 5.10.00 and 5.10.01.

# La classificazione

La classificazione generale non cambia, ma cambiano alcuni gradi e la nuova lista include il **limite per i non paper components e per i total unwanted material per ogni singola qualità.**

## 6 Classifications

### 6.1 Group 1, ordinary grades

| Code    | Name                                | Description   | Non-paper components in % | Total unwanted material in % |
|---------|-------------------------------------|---|---------------------------|------------------------------|
| 1.01.00 | ordinary mixed paper and board      | A mixture of various grades of paper and board,   | 1,5                       | 3                            |
| 1.02.00 | mixed paper and board               | A mixture of various qualities of paper and board, containing a maximum of 40 % newspapers and magazines. | 1,5                       | 2,5                          |
| 1.03.00 | boxboard cuttings                   | Printed and unprinted white lines and unlined grey board or mixed board, free from corrugated material.   | 1                         | 2                            |
| 1.04.00 | ordinary corrugated paper and board | Used paper and board packaging, containing a minimum of 70 % of corrugated board, the                     | 1,5                       | 3                            |

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|--|--|---|
| 1.01.00 ordinary mixed paper and board       | 1.01 mixed paper and board, unsorted, but unusable materials removed | Perde l'indicazione "non selezionati" e "senza limiti di fibre corte" |
| 1.02.00 mixed paper and board                | 1.02 mixed papers and boards (sorted)                                | Perde l'indicazione "selezionati"                                     |
| 1.03.00 boxboard cuttings                    | 1.03 grey board  | Cambia il titolo  |
| 1.04.00 ordinary corrugated paper and board  | 1.04 supermarket corrugated paper and board                          | Cambia titolo. 70% ondulato, il resto altre carte (non solo imballi)  |
| 1.04.01 corrugated paper and board           | NEW  | 80% ondulato, il resto altre carte (non solo imballi)                 |
| 1.04.02 corrugated paper and board packaging | NEW  | Cambia titolo. 70% ondulato, il resto altri imballi                   |
| 1.05.00 ordinary corrugated board            | 1.05 old corrugated containers                                       | 90% ondulato, il resto altri imballi                                  |

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| 1.05.01 corrugated board                            | NEW  | 95% ondulato, il resto altri imballi                               |
| 1.06.00 magazines                                   | 1.06 unsold magazines  | Perde "invenduti"  |
| 1.06.01 magazines without glue                      | 1.06.01 unsold magazines without glue                        | Perde "invenduti"  |
| 1.06.,02 magazines with product samples             | NEW  | Ammessi i non-paper components                                     |
| 1.09 newspapers and magazines                       | Sostituisce 1.08, 1.09 e 1.10 mixed magazines and newspapers | 30% minimo di riviste e 30% minimo di giornali (totale 60% minimo) |
| 1.11.00 sorted graphic paper for deinking           | 1.11 sorted graphic paper for deinking                       | 80% minimo di giornali o riviste (non più 40+40)                   |
| 2.02.00 unsold newspapers not intended for deinking | 2.02.00 unsold newspapers                                    | Accettati inserti (non aggiunti) e carte non disinchiostabili      |

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| 2.02.01 unsold newspapers   | 2.02.01 unsold newspapers, no flexographic printing allowed             | Accettati inserti (non aggiunti)   |
| 2.03.00; 2.03.01; 2.04.00; 2.04.01 lightly and heavily printed white shavings | 2.03; 2.03.01; 2.04; 2.04.01 lightly and heavily printed white shavings | Aggiunto "coated or uncoated"  |
| 2.05.00 ordinary sorted office paper  | 2.05 sorted office paper  | Anche triturate. Può contenere carte colorate, minimo 60% senza legno, senza carta copiativa, massimo 10% carta non bianchita e custodie |
| 2.05.01 sorted office paper   | NEW   | Idem sopra ma 80% senza legno  |
| 2.06.00 ordinary sorted coloured letters                                      | 2.06 coloured letters   | Idem sopra ma ammesse carte colorate e 70% senza legno   |

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| 2.06.01 sorted coloured letters  | NEW  | Idem sopra ma ammesse carte colorate e 90% senza legno |
| 2.07.00 white woodfree bookquire   | 2.07 white woodfree books  | Aggiunti rifili  |
| 2.07.01 white mechanical pulp based bookquire  | NEW  | Principalmente con legno                               |
| 2.08.00 coloured woodfree magazines  | 2.08 coloured woodfree magazines                                     | Tolta assenza di inchiostri e adesivi non disperdibili |
| ELIMINATA  | 2.09 carbonless copy paper   |  |
| 2.10.00, 2.011.00 bleached woodfree board with plastic layer, other board with plastic layer | 2.10, 2.11 bleached woodfree PE-coated board e other PE-coated board | Sostituito PE con plastic layer                        |

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| 2.13.00 multigrade                              | NEW   | Mix di carte bianche e leggermente colorate, riviste e altre carte senza legno. Senza giornale ma 10% con legno e 2% con carta plastificata |
| 2.14.00 coloured log end tissue                 | NEW   | Tissue colorato non usato. Può essere stampato e con anime non rigide   |
| 2.14.01 white log end tissue                    | NEW   | Tissue bianco non usato. Può essere stampato e con anime non rigide   |
| 3.01.00 mixed lightly coloured printer shavings | 3.01 mixed lightly coloured woodfree printer shavings | Titolo cambiato   |
| 3.03.00 woodfree binders                        | 3.03 woodfree binders                                 | Con 2% carta plastificata   |
| 3.03.01 special woodfree binders                | NEW   | Come sopra, senza carte con legno o plastificate  |

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| 2.13.00 multigrade                       | NEW                                    | Mix di carte bianche e leggermente colorate, riviste e altre carte senza legno. Senza giornale ma 10% con legno e 2% con carta plastificata |
| 3.05.00 white woodfree letters           | 3.05 white woodfree letters            | Accetta 5% di meccanica   |
| 3.05.01 white woodfree letters unprinted | NEW                                    | Come sopra, senza stampa  |
| 3.06.00 white business forms             | 3.06 white business forms              | Aggiunto senza colla e NCR  |
| ELIMINATA                                | 3.07 white woodfree computer print-out |   |
| 3.10.00 multi printing                   | 3.10 multi printing                    | Aggiunto in fogli o rifili, senza indicazione livello di stampa   |

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| 3.10.01 medium printed multi printing  | NEW   | Come sopra ma con stampa media o intensa                        |
| 3.11.01 mixed white heavily printed multiply board   | NEW   | Come 3.11 ma con massimo 20% di strati grigi e avana            |
| 3.14.00, 3.15.00 e 3.15.01 white newsprint, white mechanical pulp based paper e white coated mechanical pulp-based paper | 3.14, 3.15, 3.15.01. white newsprint, white mechanical pulp based coated and uncoated paper e white mechanical pulp based paper containing coated paper | Aggiunto senza colla  |
| 3.16.01 white woodfree papers  | NEW   | Fogli e rifili non stampati patinati e non patinati senza colla |
| 3.17 white shavings  | 3.17 white shavings   | Non più ammesso 10% di patinate                                 |
| 3.18.02 white envelope cuttings  | NEW   | Possono contenere colla   |

| 3.10.01 medium printed multi printing                    | NEW  | Come sopra ma con stampa media o intensa             |
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| 3.20.00 unprinted tissue coloured in the mass            | NEW  | Tissue non usato colorato non stampato senza imballo |
| 3.20.01 white unprinted tissue                           | NEW  | Tissue non usato bianco non stampato senza imballo   |
| 4.01.00 unused board and shavings of corrugated material | Elimina la 4.01 new shavings of corrugated board, e sostituisce 4.01.02 Unused corrugated material |  |
| 4.04.00 used kraft sacks                                 | 4.04 used kraft sacks  | Aggiunge stampati e non                              |
| ELIMINATA  | 4.04.01 used kraft sacks with polycoated papers  |  |
| 4.05.00 unused kraft sacks                               | 4.05 unused kraft sacks  | Aggiunge stampati e non                              |
| ELIMINATA  | 4.05.01 unused kraft sacks with polycoated papers  |  |

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|---------------------------------------|--------------------------------------|--|
| 4.06.00 used kraft                    | 4.06 used kraft                      | Aggiunge stampati e non  |
| 4.08.00 new carrier kraft             | 4.08 new carrier kraft               | Aggiunge stampati e non  |
| 5.01.00 mixed papers                  | 5.01 mixed recovered paper and board | Ora un insieme di carta di gruppi da 1 a 5. Senza indicazione "separao alla fonte" |
| 5.02.00 mixed packaging               | 5.02 mixed packaging                 | Specifica senza carte grafiche, non solo giornali e riviste                        |
| 5.03.00 used liquid packaging board   | 5.03 liquid board packaging          | Titolo cambiato e specifica plastica al posto di PE                                |
| 5.03.01 unused liquid packaging board | NEW                                  | Come sopra ma fogli e rifili   |
| 5.04.00                               | 5.04 wrapper kraft                   | Include tutti i tipi di strati di plastica, omette le bituminate                   |
| 5.05.01 dry labels                    | NEW                                  | Etichette wet strength   |

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| 5.05.02 labels with base layer                                  | NEW | Materiale derivante da lavorazione e uso di etichette e carta release |
| 5.05.03 paper release liner for self-adhesive labels            | NEW | Carta release senza anime o etichette                                 |
| 5.06.01 unprinted white and coloured wet-strength papers        | NEW | Carte wet strength bianche o colorate in massa                        |
| 5.07.01 printed white and coloured wet-strength woodfree papers | NEW | Carte wet strength bianche o colorate in massa stampate               |
| 5.08.00 cores   | NEW | Anime e rifili di anime in carta senza terminali in metallo           |
| 5.09.00 carbonless copy paper (NCR)                             | NEW | Fogli e rifili di NCR   |

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| 5.10.00 printed white envelope | NEW | Buste bianche, stampate internamente, con o senza colla e finestra                                 |
| 5.10.01 mixed envelopes        | NEW | Buste bianche o colorate in massa , stampate internamente, con o senza colla e finestra            |
| 5.11.00 blister pack           | NEW | Cartone da imballo con pannello in plastica. Il cartone può essere plastificato o con inserti      |
| 5.12.00 used kraft sacks       | NEW | Sacchi kraft usati, stampati e non, wet strength e non, possono avere carta con strato in plastica |

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| 5.12.01 used kraft sacks with plastic layer papers                   | NEW | Sacchi kraft usati con carta con strato in plastica, stampati e non, wet strength e non            |
| 5.13.00 unused kraft sacks with plastic layer papers                 | NEW | Sacchi kraft nuovi, stampati e non, wet strength e non, possono avere carta con strato in plastica |
| 5.13.01 unused kraft sacks with plastic layer papers and poly liners | NEW | Sacchi kraft nuovi con carta con strato in plastica, stampati e non, wet strength e non            |
| 5.14.00 used paper cups and other used tableware                     | NEW | Tazze e altre stoviglie in carta usate, anche con strato in plastica, con minimo 75% di fibra      |

| 5.14.01 unused paper cups and other tableware | NEW | Fogli e rifili di tazze e altre stoviglie in carta, anche con strato in plastica, con minimo 75% di fibra |
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