



Quick overview
of the changes in the
European List of Standard
Grades of Paper and Board
for Recycling

EN 643

Grade Group 1

Changes have been made to grades 1.04, 1.05, 1.06, 1.08, 1.09, 1.10, 1.11

- **Group 1 contains fewer grades** than in the previous EN 643, but for 1.04, 1.05 and 1.06, **sub-grades have been introduced**. This follows the way the market has developed in recent years and especially the way bulk grades have been traded. Where measured, the differences in the content of corrugated board in 1.04 and 1.05 sub-grades should be respected. Technical solutions for determining the precise level of corrugated board exist (e.g. through core drilling devices).
- **Grade 1.04.00 corresponds to the former grade 1.04. 1.04.01 and 1.04.02 allow also non-packaging material** in the fraction not consisting of corrugated board. **Grade 1.06.02 takes account of the increasing existence of product samples attached to magazines**. The ability to deal with these products differs widely between paper mills and should be agreed between buyer and supplier bilaterally. The allowed percentage of these product related non-paper components needs to be agreed between buyer and seller in addition to the percentages in the columns for non-paper components and total unwanted material.
- **Grade 1.09 replaces former grades 1.08, 1.09 and 1.10**. The single grade does not specify precise percentages of newspapers or magazines and this is related to the different reading habits in European countries. It only specifies minimum percentages of 30% each. The precise percentages of newspapers and magazines above 30% should be determined between buyers and sellers bilaterally.
- **Grade 1.11 has been adapted to changing and differing reading habits**. Compared to the former Grade 1.11 the new Grade 1.11.00 has a lower minimum percentage for newspapers: 30% instead of 40%. Newspapers and magazines must jointly still reach a minimum percentage of 80%. Paper mills who need higher percentages of one or the other should agree with their suppliers bilaterally.

Grade Group 2

Changes have been made to grades 2.02, 2.05, 2.06, 2.07, 2.09, 2.13, 2.14

- **Grade 2.02 (new: 2.02.00) and 2.02.01 were rephrased** without changing much of their content. By the exclusion of flexo-graphic printing, already the previous version of 2.02.01 indicated that the grade is intended for deinking. The incorporation of 2.02.01 in the "grades usually intended for deinking" fulfils the purpose of excluding non-deinkable paper products even better. The existence of the "deinking subgrade" implies that the main grade is not necessarily intended for deinking. To make this difference clear, the main grade 2.02.00 is now named "unsold newspapers not intended for deinking".
- **Grade 2.05 now has a description**. It aims at describing the quality rather than the origin. The distinction between the sub-grades is in the minimum percentage of woodfree paper and in the maximum percentage of unbleached fibres. The grade is now split into two subgrades: 2.05.00 allows a maximum of 5% newspaper and packaging, while 2.05.01 is free from those items.
- **Grade 2.06 is also split according to the minimum level of woodfree paper**.
- **Grade 2.07 is split into two sub-grades** for woodfree and for mechanical pulp based bookquire.
- **The former grade 2.09 has been moved to Group 5 (Special Grades)**.
- **Grades 2.13, 2.14 and 2.14.01 have been added to the list** since these are traded with these specifications in considerable quantities today.

Grade Group 3

Changes have been made to grades
3.03, 3.05, 3.07, 3.10, 3.11, 3.16, 3.18, 3.20

- Grade 3.03, woodfree binders, may now contain up to 2% plastic layered paper.
- Grade 3.05 now contains a sub-grade to distinguish unprinted qualities. 3.05.01 also covers the former grade 3.07.
- Grade 3.10 now contains a sub-grade to distinguish the degree of printing.
- Grade 3.11 now contains a sub-grade to distinguish white qualities from qualities containing up to 20% brown and grey plies.
- Grade 3.16 now contains a sub-grade. 3.16 covers only covers coated woodfree paper, while 3.16.01 can contain coated and uncoated woodfree paper.
- Grade 3.18 now contains two sub-grades. While 3.18 may contain up to 5% coated paper, both subgrades must be free of coated paper. While 3.18.01 is free of glue, 3.18.02 may contain some glue.
- Grade 3.20 and 3.20.01 have been added, since white and mass coloured tissue are today traded in considerable quantities.

Grades Group 4

Changes have been made to grades
4.01, 4.04, 4.05

- Former sub-grade 4.01.02 has been removed from the grade list.
- Former sub-grades 4.04.02 and 4.05.02 have been moved to group 5 (5.12 and 5.13).

Grades Group 5

Changes have been made to grades
5.01, 5.03, 5.05, 5.06, 5.07, 5.08, 5.09, 5.10, 5.11, 5.12, 5.13, 5.14

Group 5 has been extended: It reflects the existence of more complex paper products, but also improved recycling processes that can deal with such grades. Their inclusion in the special grades of group 5 also aims at reducing their presence in groups 1 to 4.

- Grade 5.01 (together with 5.03.00) are the only grades with a maximum level for non-paper components higher than 1.5%. This is due to the fact that these materials are often not submitted to additional sorting between collection and the paper mill.
- Grade 5.03 now has a sub-grade for unused liquid packaging board as this market has significantly increased. 5.03.00 has a maximum limit of 3% for non-paper components. The significant difference with the usual maximum limit of 1,5% is due to the way this material is collected, often together with other non-paper packaging material. 5.03.01 is unused liquid packaging board.
- Grade 5.05 now has three additional sub-grades in addition to 5.05.00, which remains unchanged. Their composition is described in EN 643.
- Grades 5.06 and 5.07 now have sub-grades to separate white from coloured wet-strength papers.
- Grades 5.08 to 5.14 and their sub-grades have been added to the list, either coming from other grades (such as 5.09, 5.12, 5.13) or have been newly added to the list due to the existence of considerable volumes of these qualities and opportunities for effective recycling into new products.

**Tables with differences
between the 2002 and 2013 versions
of the EN 643 by grade**



- Grade Group 1 -

Old Grade Number	Old Title	Old Description	New Grade Number	New Title	Description
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.	1.04.00	Corrugated paper and board packaging	Used paper and board packaging, containing a minimum of 70 % of corrugated board, the rest being other packaging papers and boards.
			1.04.01	Ordinary corrugated paper and board	Used paper and board packaging, containing a minimum of 70 % of corrugated board, the rest being other paper and board products.
			1.04.02	Corrugated paper and board	Used paper and board packaging, containing a minimum of 80 % of corrugated board, the rest being other paper and board products.
1.05	Old corrugated containers	Used boxes and sheets of corrugated board of various qualities.	1.05.00	Ordinary corrugated board	Used boxes and sheets of corrugated board of various qualities, may include 10 % of other packaging papers and boards.
			1.05.01	Corrugated board	Used boxes and sheets of corrugated board of various qualities, may include 5 % of other packaging papers and boards.
1.06	Unsold magazines	Unsold magazines, with or without glue	1.06.00	Magazines	Magazines with or without glue.
1.06.01	Unsold magazines, without glue	Unsold magazines, without glue	1.06.01	Magazines without glue	Magazines without glue
			1.06.02	Magazines with product samples	Magazines with or without glue, may contain on-paper components as attached product samples.
1.08	Mixed newspapers and magazines	A mixture of newspapers and magazines, containing a minimum of 50% of newspapers, with or without glue.			

- Grade Group 1 -

Old Grade Number	Old Title	Old Description	New Grade Number	New Title	New Description
1.09	Mixed newspapers and magazines	A mixture of newspapers and magazines, containing a minimum of 60% of newspapers, with or without glue	1.09.00	Newspapers and magazines	Mixture of newspapers and magazines (predominantly unsold) each of them with a minimum of 30 %.
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.	1.11.00	Sorted graphic paper for deinking	Sorted graphic paper, consisting of a minimum of 80 % newspapers and magazines. It has to contain at least 30 % newspapers and 40 % magazines. Print products which are not suitable for deinking are limited to 1.5 %.

- Grade Group 2 -

Old Grade Number	Old Title	Old Description	New Grade Number	New Title	New Description
2.02	Unsold newspapers	Unsold daily newspapers, free from additional inserts or illustrated material coloured in the mass.	2.02.00	Unsold newspapers not intended for deinking	Unsold newspapers, which may contain inserts originally circulated with the publication. No additional inserts allowed. Paper products not suitable for deinking are allowed.
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.	2.02.01	Unsold newspapers	Unsold newspapers, which may contain inserts originally circulated with the publication. No additional inserts allowed.
2.05	Sorted office paper	Sorted office paper	2.05.00	Ordinary sorted office paper	Paper, as typically generated by offices, shredded or unshredded, printed, may contain coloured papers, with a minimum 60 % woodfree paper, free of carbon and principally free from carbonless copy paper (ccp)/no carbon required (NCR), less than 10 % unbleached fibres including manila envelopes and file covers, less than 5 % newspapers and packaging.
			2.05.01	Sorted office paper	Paper, as typically generated by offices, shredded or unshredded, printed, may contain coloured papers, with a minimum 80 % woodfree paper, free of carbon and principally free from carbonless copy paper (ccp)/no carbon required (NCR), less than 5 % unbleached fibres including manila envelopes and file covers.
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.	2.06.00	Ordinary sorted coloured letters	Paper, as typically generated by offices, shredded or unshredded, lightly printed, mass coloured paper allowed, but no deep coloured papers, with a minimum of 70 % woodfree paper, free of carbon and principally free of carbonless copy paper (ccp)/no carbon required (NCR), free of manila envelopes, file covers, newspapers and cardboard.

- Grade Group 2 -

Old Grade Number	Old Title	Old Description	New Grade Number	New Title	New Description
			2.06.01	Sorted coloured letters	Paper, as typically generated by offices, shredded or unshredded, lightly printed, mass coloured paper allowed, but no deep coloured papers, with a minimum of 90 % woodfree paper, free of carbon and principally free of carbonless copy paper (ccp)/no carbon required (NCR), free of manila envelopes, file covers, newspapers and cardboard.
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	2.07.00	White woodfree bookquire	Books or their shavings, without hard covers, mainly of white woodfree paper, mainly black printed, containing a maximum of 10 % coated paper.
			2.07.01	White mechanical pulp-based bookquire	Books or their shavings mainly of white mechanical pulp-based paper, without hard covers, mainly black printed, containing a maximum of 10 % coated paper.
2.09	Carbonless copy paper	Carbonless copy paper			
			2.13.00	Multigrade	A blend of coloured and white letters, coloured woodfree magazines and other woodfree papers and shavings. Free from newsprint but 10 % of other wood containing papers are permitted. May contain 2 % paper with plastic layer.
			2.14.00	Coloured log end tissue	Unused coloured tissue including soft cores. May contain printed material
			2.14.01	White log end tissue	Unused white tissue including soft cores. May contain printed material.

- Grade Group 3 -

Old Grade Number	Old Title	Old Description	New Grade Number	New Title	New Description
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.	3.03.00	Woodfree binders	White woodfree lightly printed shavings with glue, free from paper coloured in the mass. May contain 2 % paper with plastic layer and a maximum of 10 % of mechanical pulp-based paper.
			3.03.01	Special woodfree binders	White woodfree lightly printed shavings with glue, free from paper coloured in the mass. Plastic layered and mechanical pulp-based papers not permitted.
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.	3.05.00	White woodfree letters	Sorted uncoated white woodfree printing and writing papers, printed, free from cash books, carbon paper and non-water soluble adhesives. May contain 5% mechanical pulp-based paper.
3.07	White woodfree computer print-out	White woodfree computer print-out, free from carbonless paper and glue.			
3.10	Multi printing	Woodfree, coated, lightly printed, free from wet-strength paper or paper coloured in the mass.	3.10.00	Multi printing	Lightly printed woodfree coated papers in sheets or trim, free from wet-strength paper and from paper coloured in the mass.
			3.10.01	Medium printed multi printing	Medium and heavily printed woodfree coated papers in sheets or trim, free from wet-strength paper and from paper coloured in the mass.
3.11	White heavily printed multiply board	New cuttings of heavily printed white multiply board, containing woodfree, mechanical or thermo-mechanical pulp plies, but without grey plies.	3.11.00	White heavily printed multiply board	New cuttings of heavily printed white multiply board, containing woodfree or wood containing plies, but without grey and brown plies.
			3.11.01	Mixed white heavily printed multiply board	New cuttings of heavily printed white multiply board, containing woodfree or wood containing plies, with a maximum of 20 % grey and brown plies.
3.16	White woodfree coated paper, without glue	Shavings and sheets of white unprinted woodfree coated paper, without glue	3.16.00	White coated woodfree paper	Shavings and sheets of white unprinted woodfree coated paper, without glue.
			3.16.01	White woodfree papers	Shavings and sheets of white unprinted woodfree coated and uncoated papers without glue.

- Grade Group 3 -

Old Grade Number	Old Title	Old Description	New Grade Number	New Title	New Description
3.18	White woodfree shavings	Shavings and sheets of white unprinted woodfree paper, may contain a maximum of 5% of coated paper. Without glue.	3.18.00	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.	3.18.01	White woodfree uncoated shavings	Shavings and sheets of white unprinted woodfree paper, free from coated paper. Without glue.
			3.18.02	White envelope cuttings	Shavings and sheets of white unprinted woodfree paper, free from coated paper. May contain some glue.
			3.20.00	Unprinted tissue coloured in the mass	Unused unprinted tissue coloured in the mass free of packaging materials.
			3.20.01	White unprinted tissue	Unused white unprinted tissue free from packaging materials.

- Grade Group 4 -

Old Grade Number	Old Title	Old Description	New Grade Number	New Title	New Description
4.01.02	Unused corrugated material	Unused boxes, sheets and shavings of corrugated board, with liners of kraft or testliner.			
4.04.01	Used kraft sacks with polycoated papers	Clean used kraft sacks. Wet-strength and non wet-strength. May include polycoated papers.			
4.05.01	Unused kraft sacks with polycoated papers	Unused kraft sacks. Wet-strength and non wet-strength. May include polycoated papers.			

- Grade Group 5 -

Old Grade Number	Old Title	Old Description	New Grade Number	New Title	New Description
5.01	Mixed recovered paper and board	Unsorted paper and board, separated at source.	5.01.01	Mixed papers	A mixture of various paper grades that can be found in the groups 1 to 5.
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.	5.03.00	Used liquid packaging board	Used liquid packaging board with plastic layer (with or without aluminium content), containing a minimum of 50 % by weight of fibres.
			5.03.01	Unused liquid packaging board	Printed or unprinted shavings or sheets of liquid packaging board (with or without aluminium and/or plastic layer), containing a minimum of 50 % by weight of fibres.
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.	5.05.00	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.
			5.05.01	Dry labels	Labels made from wet-strength papers.
			5.05.02	Labels with base layer	Label paper, release paper and label stock as well as from converting and dispensing of labels.
			5.05.03	Paper release liner for selfadhesive labels	Release liner materials from the converting and dispensing of self-adhesive labels. Materials shall be free from labels, cores, and other contaminants.
5.06	Unprinted white wet-strength woodfree papers	Unprinted white wet-strength woodfree papers	5.06.00	Unprinted white wet-strength woodfree papers	Unprinted white wet-strength woodfree papers
			5.06.01	Unprinted white and coloured wet-strength papers	Unprinted white and coloured in the mass wet-strength papers

- Grade Group 5 -

Old Grade Number	Old Title	Old Description	New Grade Number	New Title	New Description
5.07	Printed white wet-strength woodfree papers	Printed white wet-strength woodfree papers	5.07.00	Printed white wet-strength woodfree papers	Printed white wet-strength woodfree papers
			5.07.01	Printed white and coloured wet-strength woodfree papers	Printed white and coloured in the mass wet-strength woodfree papers
			5.08.00	Cores	Shredded, hogged or unshredded solid cores from paper reels without metal ends
			5.09.00	Carbonless copy paper (NCR)	Sheets or shavings of new carbonless copy paper (NCR)
			5.10.00	Printed white envelope	White envelopes, printed on the inside with or without water soluble or latex glue and windows (plastic or glassine)
			5.10.01	Mixed envelopes	Mixed white or coloured in mass envelopes with or without water soluble or latex glue and windows (plastic or glassine)
			5.11.00	Blister pack	Packaging board with flat or moulded plastic part. May be board with plastic layers and inserts
			5.12.00	Used kraft sacks	Clean used kraft sacks. May be printed or unprinted or may be wet strength or non wet-strength. May include plastic layer papers.
			5.12.01	Used kraft sacks with plastic layer papers	Clean used kraft sacks with plastic layer. May be printed or unprinted and may contain wet-strength or non wet-strength plies.
			5.13.00	Unused kraft sacks	Unused kraft sacks. May be printed or unprinted and may be wet-strength or non wet-strength, and may also include papers with a plastic layer.
			5.13.01	Unused kraft sacks with plastic layer papers and poly liners	Unused kraft sacks with plastic layer and poly liners. May be printed or unprinted and may contain wet-strength or nonwet-strength plies.
			5.14.00	Used paper cups and other used tableware	Used paper cups and other tableware, including used plastic layered paper cups and tableware, containing a minimum of 75 % by weight of fibres.
			5.14.01	Unused paper cups and other tableware	Printed or unprinted shavings or sheets from the production of paper cups and other tableware, including plastic layered paper cups and tableware, containing a minimum of 75 % by weight of fibres.



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