Classification of typical paper and board grades

There is no single standardized system for the classification of paper and paperboard grades. The different systems developed for different purposes differ considerably from each other, as do systems created in geographically different locations – American, Japanese, etc. They may even use local standards that are not recognized anywhere else. This paper presents the most common classification system, based on the end use of the different paper and board grades.



Paper has many different applications, and numerous different paper grades, each with different properties, are made to meet the demands of these applications. Even though attempts have been made over the years to standardize them, the range of grades is still large.

In the table below the different paper grades are divided into groups according to their end uses, partly also according to the raw materials used. The next table presents the applications of each of these grades.





Mechanical printing and writing papers	Woodfree printing papers	Other printing papers	Packaging papers	Special papers
Newspaper Magazine papers SC magazine papers SC gravure SC offset SC catalog paper and other SC specialties Coated mechanical papers LWC MWC HWC MFC FCO	Uncoated fine papers Coated fine papers Office papers Writing papers Continuous papers Copying papers Envelope papers	Telephone directory papers and thin news- print MP special papers Bleached MF papers Colored newsprint Book papers	Sack papers Bag and wrapping papers Flexible packaging papers	Label papers Adhesive papers Greaseproof papers Hygiene papers Industrial papers Wallpapers



Paper type	Basis weight,	Application / end use	Examples
Newspaper	Around 45	Newspapers; also magazines and other less demanding advertisement publications.	Data and ground of the state of
Magazine papers - SC magazine papers - Coated mechanical papers (LWC, MWC, HWC etc.)	40-80 (SC) 40-60 (LWC) 70-130 (MWC) 51-80 (MFC)	Demanding direct sales catalogues and magazines TV guides, direct advertisement products, Sunday supplements in newspapers; other printing products that require a good information capacity.	B BEDRAL A V O N
Uncoated fine papers	70-90	Books, brochures, catalogues	
Coated fine papers	~100–200	Magazines, brochures, books, catalogues, newspaper supplements, direct advertisements, advertisement posters, maps, art books, annual reports	
Office papers - Writing papers - Continuous papers - Copying papers		Pads and notebooks; for printing different kinds of files and lists for commerce, office, bank and industry needs; paper for copying machines	
Envelope papers		From brown mailing envelopes to white mini envelopes	an and a second



Paper type	Basis weight, g/m²	Application / end use	Examples
Telephone directory papers and thin newsprint		Phone directories, timetables and special editions of newspapers, both in white and in color	
MF special papers - Bleached MF papers - Colored newsprint		Magazine papers when high bulk and low basis weight are needed; colored newsprint	POLIVOLAN SALAN CALIFORNIA CALIFO
Book papers	45-120	Books	
Sack papers	40-120	For packing different kinds of powders, grains and briquets in mining, construction, feed, chemistry and foodstuff industries; garbage bags	OKINCAL CACAO ST PHILIPS PARTIES PAR
Bag and wrapping papers - Recovered paper - Bleached - Unbleached	25-150	For packing various products	200
Flexigle packaging papers - Coated - Uncoated - Laminated (aluminum, plastic)		For packaging dry powder foods (e.g. wrapping, tobacco and candy industry)	



Paper type	Basis weight, g/m²	Application / end use	Examples
Label papers - one side coated, fully sized papers - glueable, self-adhe-sive and heat sealable labels	60-90	For labeling various products: glass jars, tins, bottles, etc.	HARTWALL 15 36 VICHY ORIGINA ORIGIN
Adhesive papers	60–100	Price labels, computer labels, barcode labels, product labels, pharmaceutical labels, sealing stickers, thermal printing labels, advertisement stickers	
Greaseproof papers	20-80	For packaging greasy or moist foodstuffs; baking papers. Greaseproof papers, vegetable parchment papers, papers laminated with aluminum foil or e.g. polyethene	UNIUNTAL UNITAL UNITA UNITAL U
Hygiene papers	7-60	Absorbent and wet durable towels. Durable, bulky and soft toilet papers. Soft, often multi-layered facial tissues. Soft, extremely wet-strength, chemical resistant refreshment papers. Embossed, simple or soft multi-layered white or pulp colored napkins, with embossed patterns in some places on the edges. Wet strength coffee filter papers made from brown or bleached pulp, with high wet strength and good filtering properties.	



Paper type	Basis weight, g/m²	Application / end use	Examples
Industrial papers		Absorbent construction papers used to produce rosin impregnated laminates, e.g. for table and door plates, floor laminates.	
		Papers for construction and insulation industry (the end products are often a combination of several materials).	
		Spinning papers, with high longitudinal tensile strength; e.g. paper string is made from these by twining.	
		Intermediate papers to protect the plates in the steel industry; demands a high level of cleanliness and evenness from the paper so as to not damage the surface of the steel plate.	A TOP TO THE PARTY OF THE PARTY
		Cable papers; must be holeless, non conducting and without fiber bundles (used as an insulation around wires).	
Wallpapers	60–150	Wallpapers and borders	

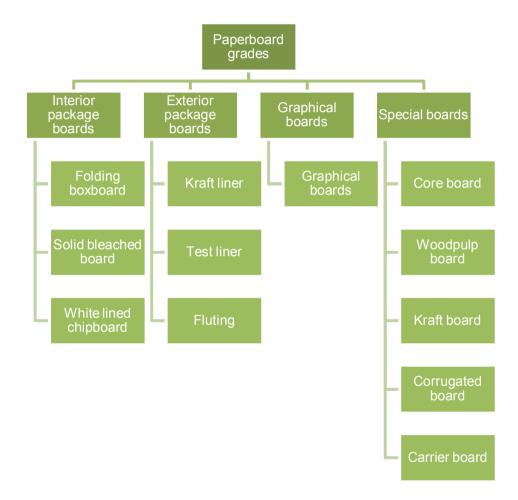


2. Boards

Boards differ somewhat from one another, depending on their intended application and raw material. However, certain features are common to most board types:

- The basis weight is usually over 150 g/m² (exceptions: thin hanging boards, most liners, fluted layer in corrugated boards)
- Boards are multilayer products
- Boards are used primarily in packaging applications
- Boards are produced on a board machine

The most common classification system for boards is shown below, and the applications of the more commonly used board types are listed on the following pages.





Board type	Basis weight, g/m²	Application / end use	Examples
Folding boxboard - Uncoated - Uncoated, white - Coated, only top - Coated, both sides	200-400	Foodstuffs in general, frozen foods, bakery products, pharmaceuticals, cigarettes, cosmetics, detergents, chocolate, pralines, hygiene products.	HORIZON
Solid bleached board - Unbleached - Uncoated - Coated, only top - Coated, both sides	60–150	Packaging foodstuffs and especially liquids (milk, juice, wine); packaging cosmetics, cigarettes, moist food- stuffs and frozen foods; disposable dishes	
White lined chipboard	200-500	Packaging non-food products, such as detergents and electric supplies; used in the manufacture of drywall panels (gypsum pressed between two board sheets).	The state of the s
Kraftliner - Unbleached - White lined - Bleached - Cloud	110-330	In corrugated boards and firm cup boards as surface layers, in multicorrugated board as middle layers. Unbleached liners: as wrap for the rollers and raw material for round, layered cartons and cores.	
Test liner	110-350	In surface layers of corrugated board	
Fluting	80-210	In the layers of fluted paper inn corrugated board	and the second s
Graphical boards - Chemical pulp based - Mechanical pulp based - Uncoated - Coated	over 250	Covers of printing products (books, brochures), cards, calendars, posters, maps, menus, pellets, greeting cards, certificates, diplomas, record and cassette cases, album covers, demanding consumer packages (chocolate boxes)	



Board type	Basis weight,	Application / end use	Examples
Core board		Heavy cores, light cores, textile cores, gravure printing cores	
Woodpulp board - White - Brown		Containers, cans, picture frames, advertisement boards, book covers	TIME OF THE PARTY
Kraft board	Over 600	Large boxes, cases and transportation packaging	
Corrugated board - Single faced - Single wall - Double wall - Triple wall		Single face board Single wall board Double wall board	
Carrier board	350-550	Detergent packages, carrying packages for bottles	

